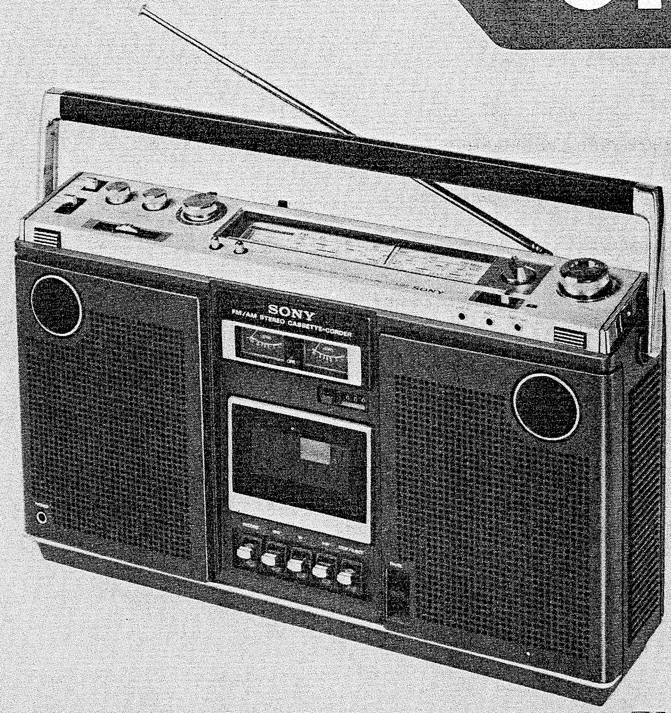
CF-570S

E Model



FM/SW2/SW1/MW STEREO CASSETTE-CORDER

SPECIFICATIONS

GENERAL

Power Requirements:	110, 120, 220, or 240 V ac, 50/60Hz 12 V dc Battery size-D, 8 pcs. (IEC designation R20) Car battery cord DCC-9 for 12 V car battery
Power Consumption:	12 W ac.
Power Output:	3.3W x 2 (max.)
(at dc operation)	2W x 2 (at 10% harmonic distortion)
Speakers:	Two-way Two approx. 16cm (6½ inches) dia. woofer Two approx. 5cm (2 inches) dia. tweeter
Dimensions:	Approx. 475(w) x 298(h) x 128(d) mm 18¾ (w) x 11¾(h) x 5⅛ (d) inches including projecting parts and controls not including handle.
Weight:	Approx. 7 kg, 15 lb 7 oz with batteries

RADIO SECTION

Antennas:	FM/SW: Telescopic antenna MW: ferrite-rod antenna
Frequency Ranges:	FM 87.5 – 108 MHz (3.43 – 2.78 m) SW2: 6 – 18 MHz (50 – 16.7 m) SW1: 2.3 – 6 MHz (130 – 50 m) MW: 530 – 1,605 kHz (566 – 187 m)

TAPE RECORDER SECTION

Track:	4 track 2-channel stereo or monaural
Fast Forward Rewind Time:	Approx. 2 minutes with Sony cassette C-60
Frequency Response:	50 – 10,000 Hz with standard cassette, with the TAPE SELECT switch set to NORMAL 50 – 13,000 Hz with chromium dioxide cassette, with the TAPE SELECT switch set to CrO_2

– Continued on page 2 –

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SONY®

SERVICE MANUAL

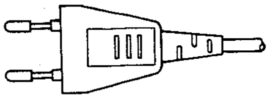
Wow and Flutter: 0.19% (WRMS)
S/N Ratio: 45 dB
Total Harmonic Distortion: 2.5%
Battery Life: In continuous recording with built-in microphone:
Approx. 8 hours with Sony long-life batteries
Input: MIC (two minijacks)
Sensitivity: 0.2 mV (−72 dB)
Impedance: for low-impedance microphone
LINE IN (two phono jacks)
Sensitivity: 0.2V (−12 dB)
Impedance: 100kΩ
Output: LINE OUT (two phono jacks)
Normal level: 0.44 V (−5 dB) at load impedance 100kΩ
Load impedance: more than 10 kΩ
HEADPHONES (binaural jack)
Load impedance: 8Ω
Other Jack: Remote control jack

0dB=0.775V

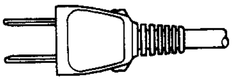
- MODEL IDENTIFICATIONS

– Power Cord –

E1 model : euro-plug

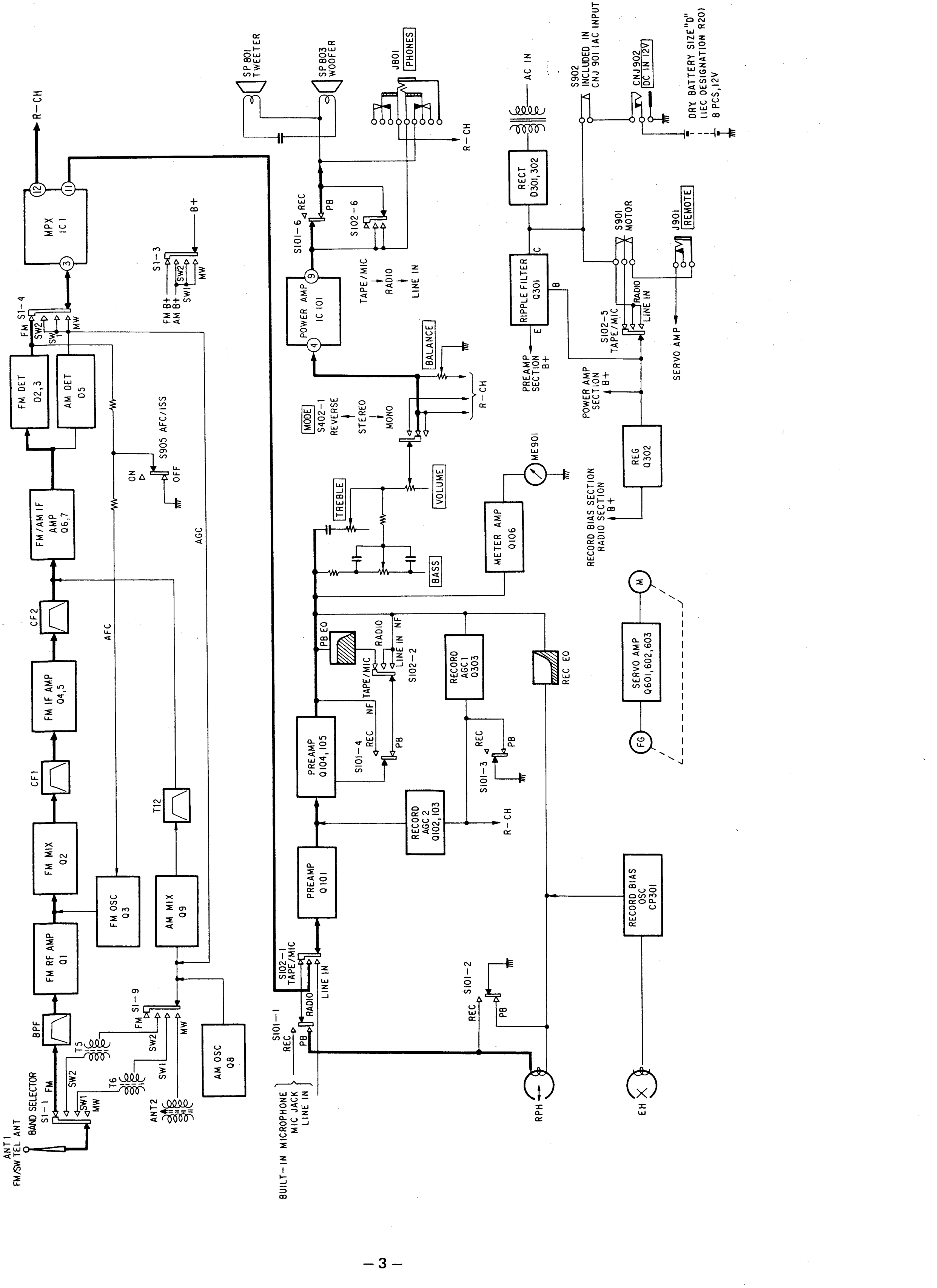


E2 model : parallel blade plug



SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM

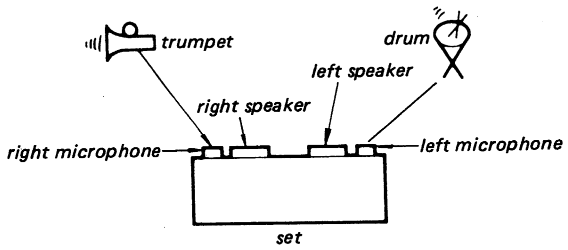

ANT1 FM/SW TEL ANT
BAND SELECTOR S1-1
FM
SW2
SW1
MW
ANT2
T5
T6
BPF
FM RF AMP Q1
FM MIX Q2
FM OSC Q3
CF1
FM IF AMP Q4,5
CF2
FM/AM IF AMP Q6,7
FM DET D2,3
AM DET D5
S1-4
S1-9
AM MIX Q9
AM OSC Q8
T12
AFC
AGC
S905 AFC/ISS
ON
OFF
S1-3
FM B+
AM B+
B+
MPX IC1
R-CH
BUILT-IN MICROPHONE
MIC JACK
LINE IN
S101-1
REC
PB
RADIO
S102-1 TAPE/MIC
PREAMP Q101
PREAMP Q104,105
RECORD AGC2 Q102,103
S101-4
NF
PB EQ
S102-2
RECORD AGC1 Q303
S101-3
REC EQ
TREBLE
BASS
VOLUME
MODE S402-1 REVERSE
STEREO
MONO
BALANCE
POWER AMP IC101
S101-6
S102-6
TAPE/MIC
RADIO
LINE IN
SP801 TWEETER
SP803 WOOFER
J801 PHONES
METER AMP Q106
ME901
S101-2
RPH
EH
RECORD BIAS OSC CP301
AC IN
RECT D301,302
RIPPLE FILTER Q301
C
B
E
PREAMP SECTION B+
POWER AMP SECTION B+
REG Q302
RECORD BIAS SECTION
RADIO SECTION B+
S902 INCLUDED IN CNJ 901 (AC INPUT)
CNJ902 DC IN 12V
DRY BATTERY SIZE "D" (IEC DESIGNATION R20) 8 PCS, 12V
S901 MOTOR
J901 REMOTE
S102-5 TAPE/MIC
SERVO AMP
M
SERVO AMP Q601,602,603
FG

1-2. REVERSE POSITION OF MODE SWITCH

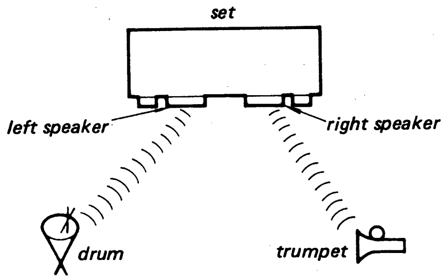
The MODE switch of CF-570S has the MONO, STEREO and REVERSE positions. The left and right sounds are reversely heard in the REVERSE position. And this set has two microphones at the both sides of front case. The sound which is recorded from the left microphone is played back from the left speaker, and the sound from the right microphone is played back from the right speaker.

Thus, when a recording is made with the recorder facing the sound sources as shown right, the playback sound of the left source is heard from the right speaker and the sound of right source is heard from the left speaker. So the playback sound is reversely heard. But setting the MODE switch to REVERSE position, the playback sound from the left and right speakers will be reversed and duplicate the original position correctly.

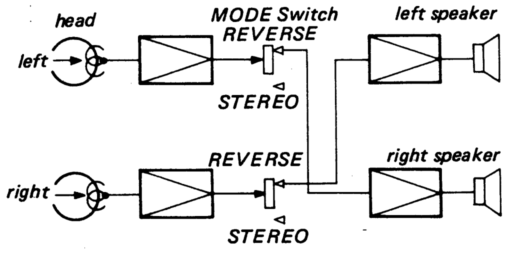
Stereo recording


trumpet
drum
left speaker
right speaker
right microphone
left microphone
set

Stereo playback (MODE switch: STEREO position)


set
left speaker
right speaker
drum
trumpet

Playback in REVERSE position


head
left
right
MODE Switch
REVERSE
STEREO
REVERSE
STEREO
left speaker
right speaker

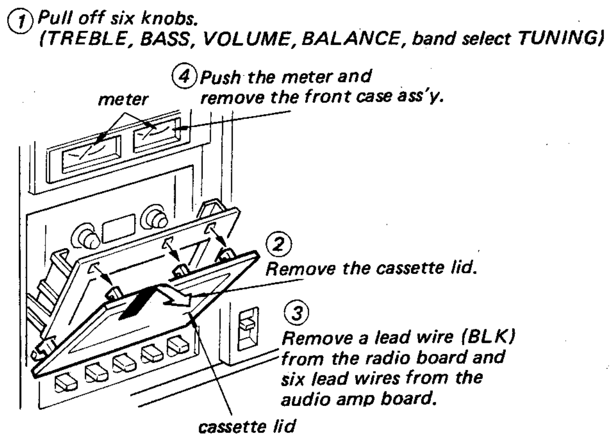
SECTION 2
DISASSEMBLY

2-1. REMOVAL

Rear Case Removal

- *Remove eight screws on the rear case.*

Front Case Ass'y Removal


meter
cassette lid

① Pull off six knobs. (TREBLE, BASS, VOLUME, BALANCE, band select TUNING)

② Remove the cassette lid.

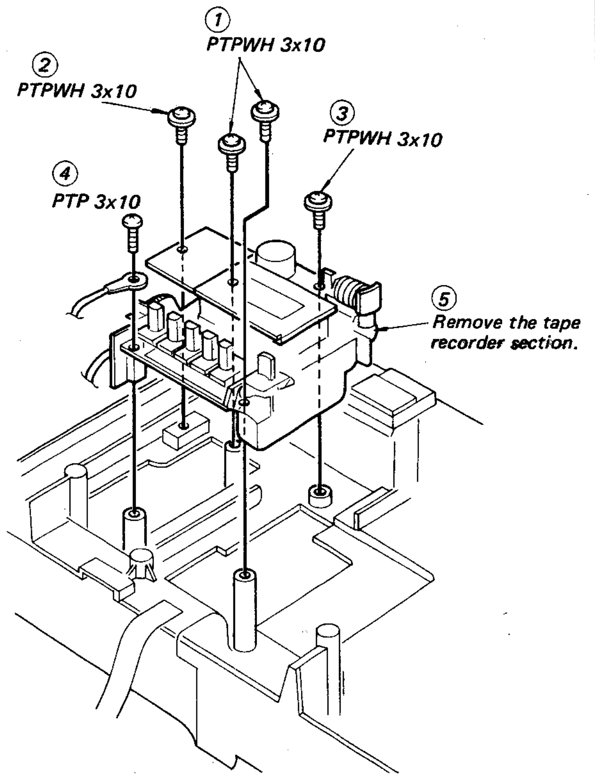
③ Remove a lead wire (BLK) from the radio board and six lead wires from the audio amp board.

④ Push the meter and remove the front case ass'y.

Dial Cord Stringing

See page 7.

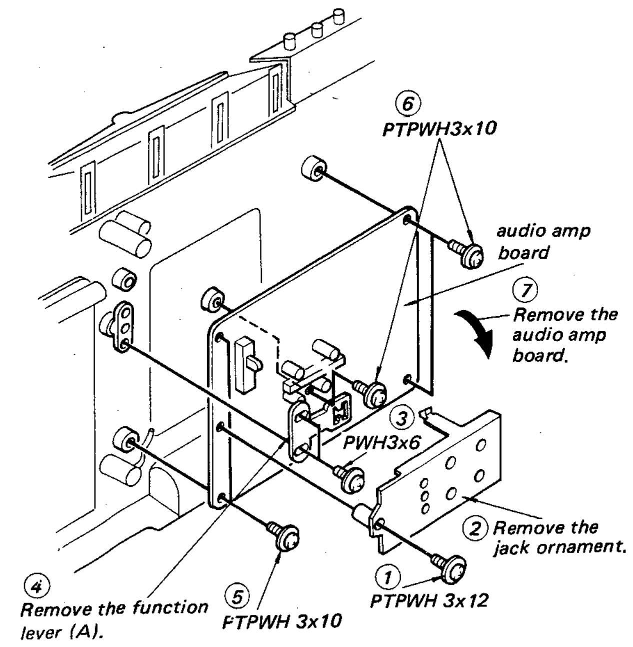
Tape Recorder Section Removal


① PTPWH 3x10
② PTPWH 3x10
③ PTPWH 3x10
④ PTP 3x10

⑤ Remove the tape recorder section.

Motor, flywheel and rubber belt can be removed.

Audio Amp Board Removal


⑥ PTPWH3x10
audio amp board
③ PWH3x6
① PTPWH 3x12
⑤ PTPWH 3x10

① PTPWH 3x12

② Remove the jack ornament.

③ PWH3x6

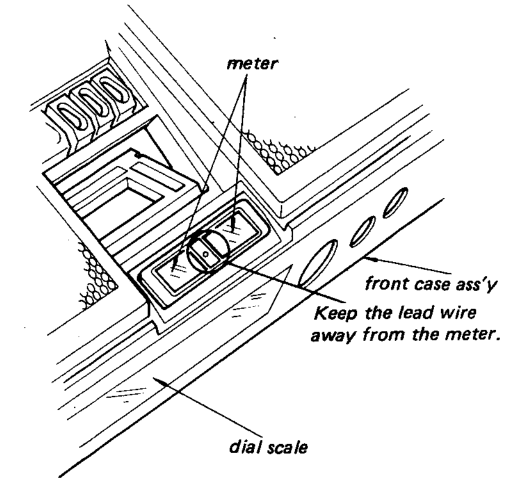
④ Remove the function lever (A).

⑤ PTPWH 3x10

⑥ PTPWH3x10

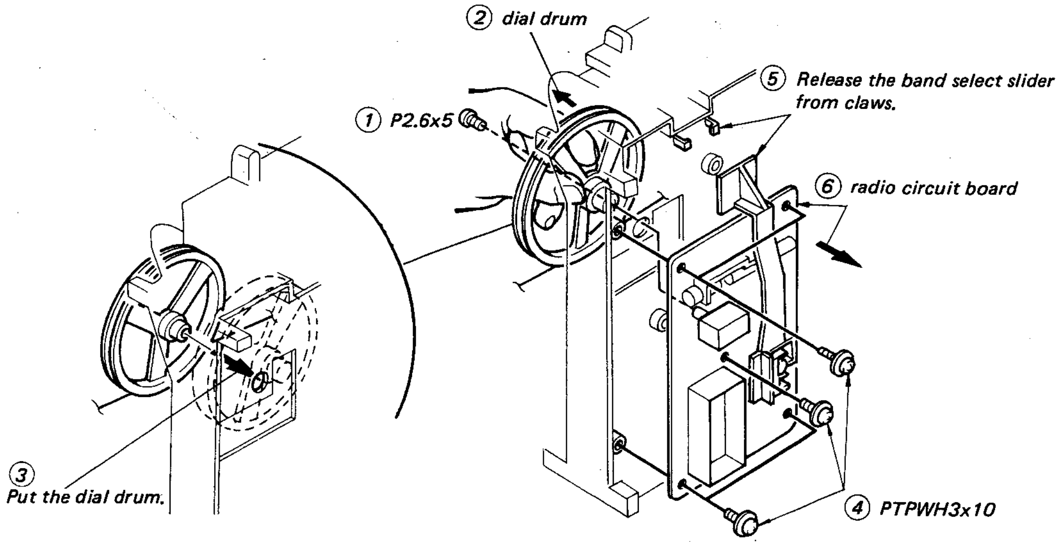
⑦ Remove the audio amp board.

Notice of Front Case Ass'y Installation


meter
front case ass'y
dial scale

Keep the lead wire away from the meter.

Radio Board Removal


② dial drum
① P2.6x5
⑥ radio circuit board
④ PTPWH3x10

① P2.6x5

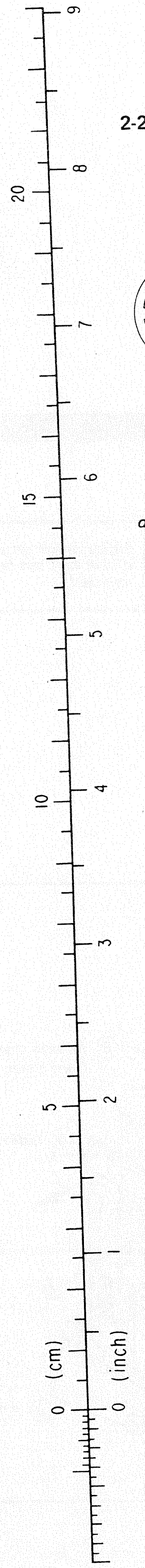
② dial drum

③ Put the dial drum.

④ PTPWH3x10

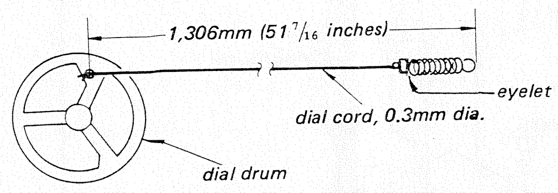
⑤ Release the band select slider from claws.

⑥ radio circuit board

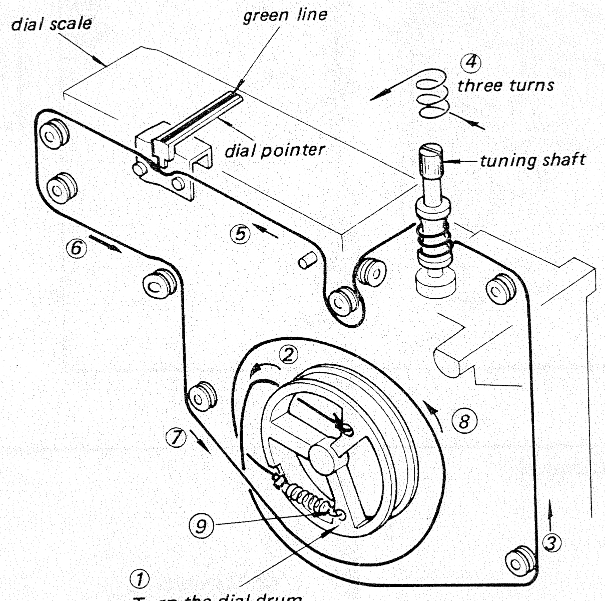

(cm)
(inch)
0
5
10
15
20
1
2
3
4
5
6
7
8
9

2-2. DIAL CORD STRINGING

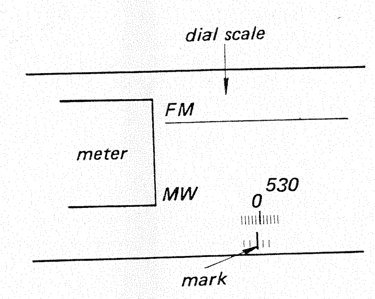
1) Preparation


1,306mm (51 7/16 inches)
eyelet
dial cord, 0.3mm dia.
dial drum

2) Stringing

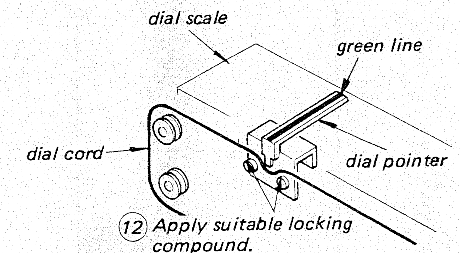

dial scale
green line
④
three turns
dial pointer
tuning shaft
⑤
⑥
②
⑧
⑦
⑨
③

①
Turn the dial drum fully counterclockwise.


dial scale
FM
meter
MW
530
0
mark

⑩ *Turn the tuning shaft fully counterclockwise.*

⑪ *Set the green line of dial pointer at the mark on the dial scale.*


dial scale
green line
dial cord
dial pointer

⑫ *Apply suitable locking compound.*

SECTION 3
ADJUSTMENTS

3-1. TAPE CORDER SECTION MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

   record/playback head
   erase head
   capstan
   pinch roller
   rubber belts
   idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply a suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Forward:

Torque meter	Meter reading
CQ-101A CQ-102A CQ-103A	22.5–55 g·cm (0.32–0.76 oz·inch)

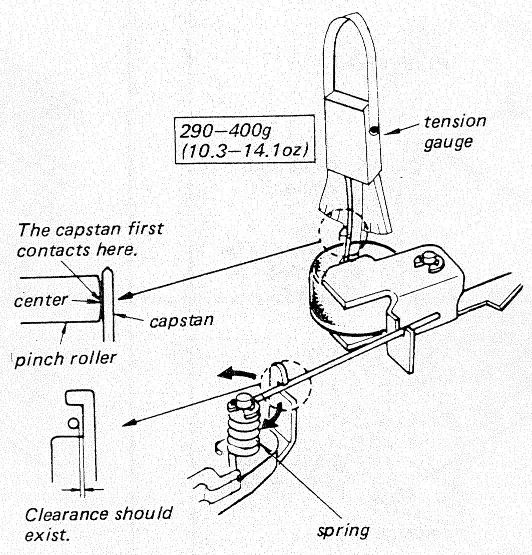
Fast Forward, Rewind:

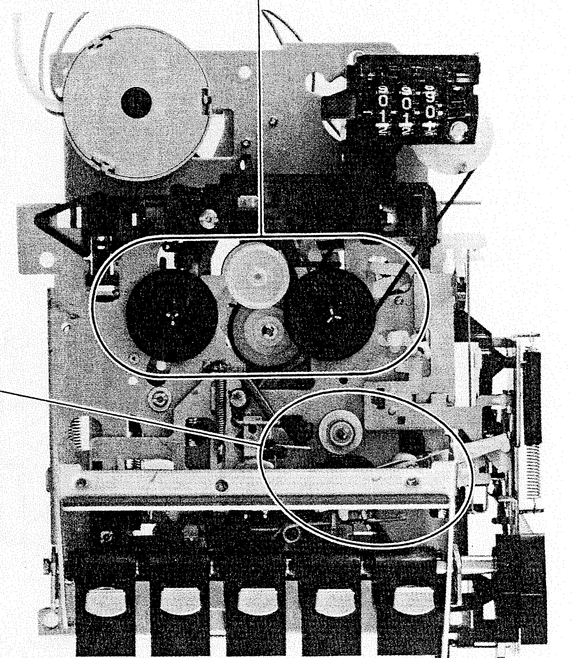
Torque meter	Meter reading
CQ-201A	55–100 g·cm (0.76–1.39 oz·inch)

Pinch Roller Pressure Adjustment

– playback mode –

1. Push the tension gauge.
2. Slowly return the pinch roller and read the tension gauge just when the pinch roller starts to rotate.
3. If necessary, bend or replace the spring.

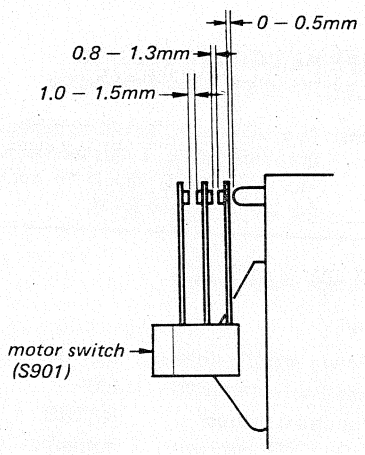

290–400g
(10.3–14.1oz)
tension gauge
The capstan first contacts here.
center
capstan
pinch roller
Clearance should exist.
spring

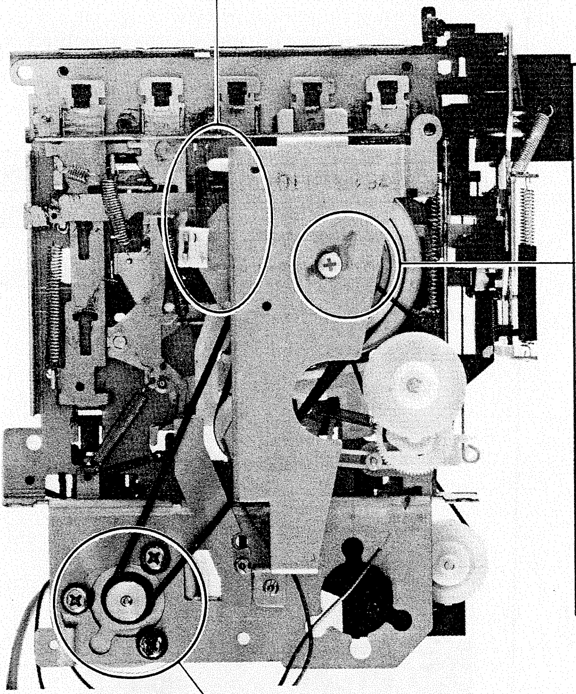


Motor Switch (S901) Position Adjustment

– stop mode –

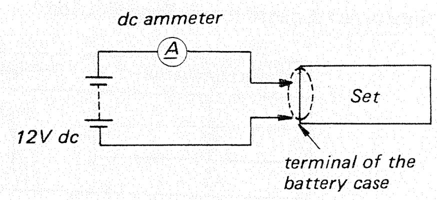
1. Bend the switch leaf so that the specified clearance is obtained between the switch lever and switch leaf.
2. After the adjustment, confirm that the motor switch turns ON in playback, fast forward and rewind modes.


0 – 0.5mm
0.8 – 1.3mm
1.0 – 1.5mm
motor switch (S901)



Flywheel Thrust Play Adjustment

Procedure:


dc ammeter
A
12V dc
Set
terminal of the battery case

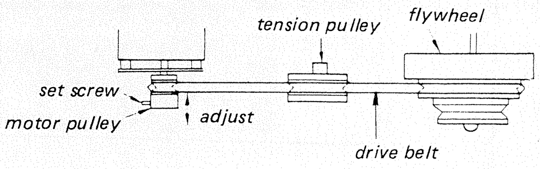
1. Place the set horizontally and reel-spindle-side-down.
2. Loosen the screw by turning it counterclockwise.
3. Carefully tighten the screw until current suddenly increases.
   Then, loosen the screw ¼ turn.

Motor Pulley Height Adjustment

After replacing the motor pulley or the flywheel, this adjustment should be performed.

Procedure:

1. Keep the set horizontal.
2. Adjust the motor pulley height so that the drive belt is straight without twist.


tension pulley
flywheel
set screw
motor pulley
adjust
drive belt

3-2. TAPE RECORDER SECTION ELECTRICAL ADJUSTMENTS

Note: The adjustments should be performed in the order given in this service manual. The adjustments should be performed for both L-CH and R-CH.

B+ Voltage Adjustment

Setting:

Power supply voltage:	12V dc
band select switch:	FM
function switch:	RADIO
VOLUME control:	minimum

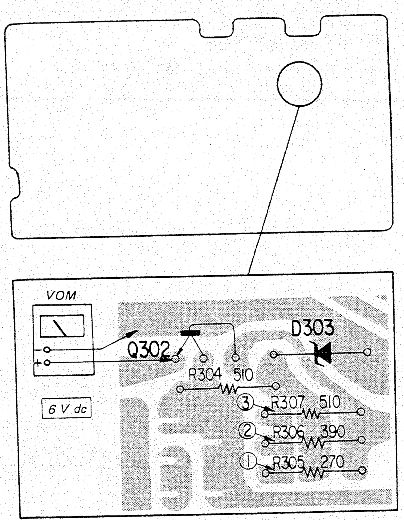
Procedure:

Adjust the pattern connection for 6V VOM reading.

Adjustment Location and Specification:

Pattern connection	B+Voltage
①	high ↕ low
②	
③	

– audio amp board –


VOM
6 V dc
Q302
D303
R304 510
③ R307 510
② R306 390
① R305 270

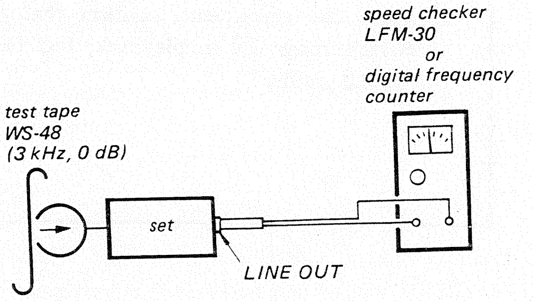
Tape Speed Adjustment

Setting:

function switch: TAPE/MIC

Procedure:

Mode: playback


speed checker
LFM-30
or
digital frequency
counter
test tape
WS-48
(3 kHz, 0 dB)
set
LINE OUT

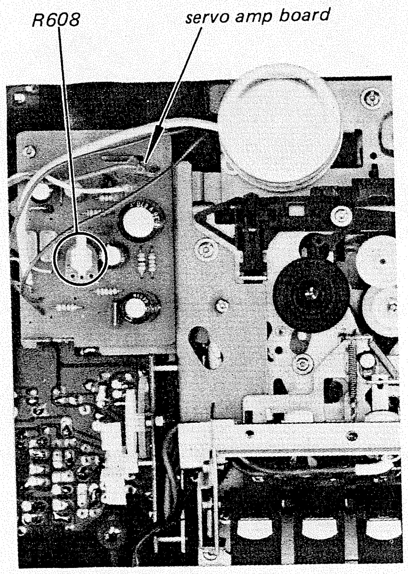
Adjust R608 to obtain the specified values below.

Specification:

Speed checker	Digital frequency counter
−2.5 – +3%	2,925–3,090 Hz

Frequency difference between beginning and end of tape should be within 1% (30 Hz).

Adjustment Location:


R608
servo amp board

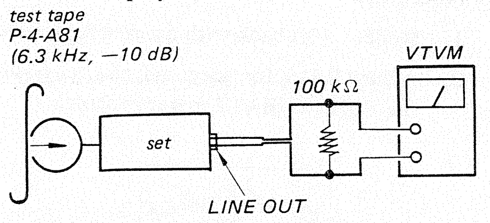
Record/playback Head Azimuth Adjustment

Setting:

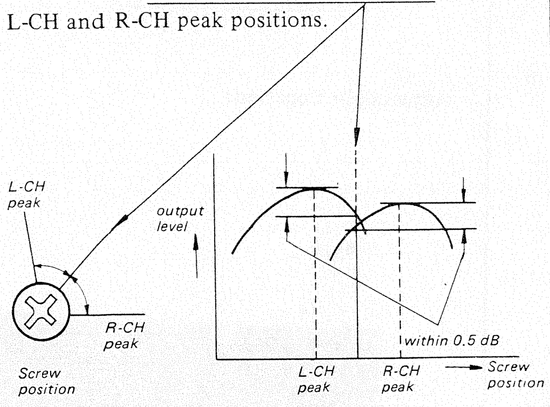
function switch: TAPE/MIC
MODE switch: STEREO

Procedure:

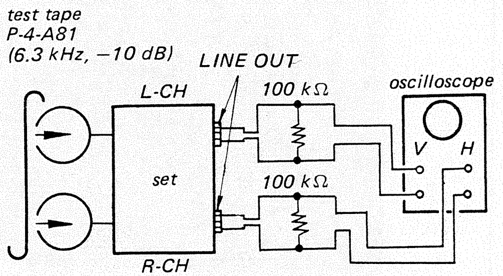
1. Mode: playback

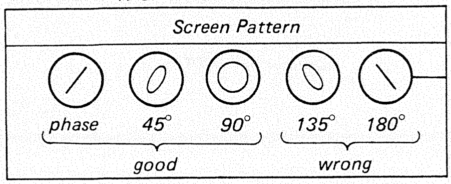

test tape
P-4-A81
(6.3 kHz, −10 dB)
VTVM
100 kΩ
set
LINE OUT

2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak positions.

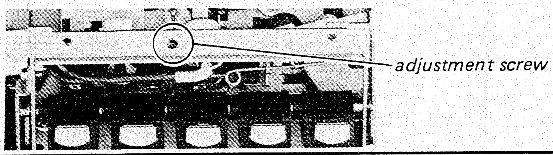

L-CH
peak
output
level
R-CH
peak
Screw
position
within 0.5 dB
L-CH
peak
R-CH
peak
Screw
position

3. Mode: playback


test tape
P-4-A81
(6.3 kHz, −10 dB)
LINE OUT
L-CH
100 kΩ
oscilloscope
set
V
H
100 kΩ
R-CH


Screen Pattern
phase
45°
90°
135°
180°
good
wrong

Adjustment Location:


adjustment screw

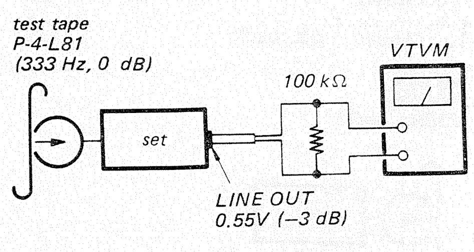
Playback Level Adjustment

Setting:

function switch: TAPE/MIC
MODE switch: STEREO

Procedure:

1. Mode: playback


test tape
P-4-L81
(333 Hz, 0 dB)
VTVM
100 kΩ
set
LINE OUT
0.55V (−3 dB)

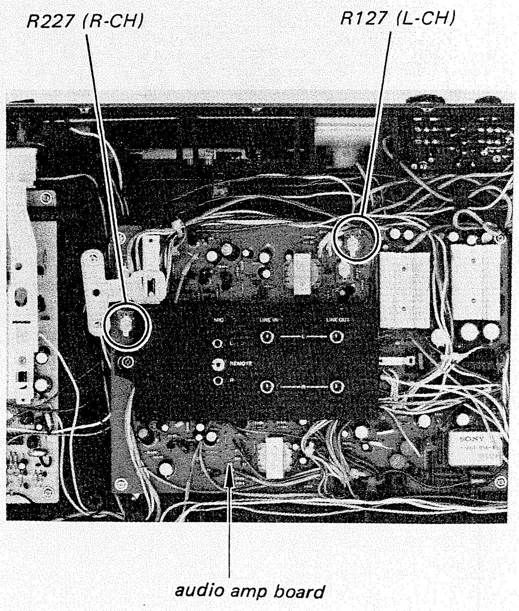
Adjust R127 (L-CH) and R227 (R-CH) to obtain 0.55V (−3dB) VTVM reading.

2. Assure that the LINE OUT level does not change when the mode is changed from playback to stop several times.

Specification:

LINE OUT level: 0.44–0.69V
(-1 – -5dB)
Level difference between channels:
less than 1.0dB

Adjustment Location:


R227 (R-CH)
R127 (L-CH)
audio amp board

Level Meter Calibration

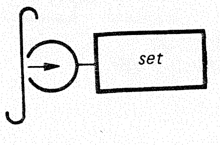
Setting:

Power supply voltage:	12V dc
function switch:	TAPE/MIC
MODE switch:	STEREO

Procedure:

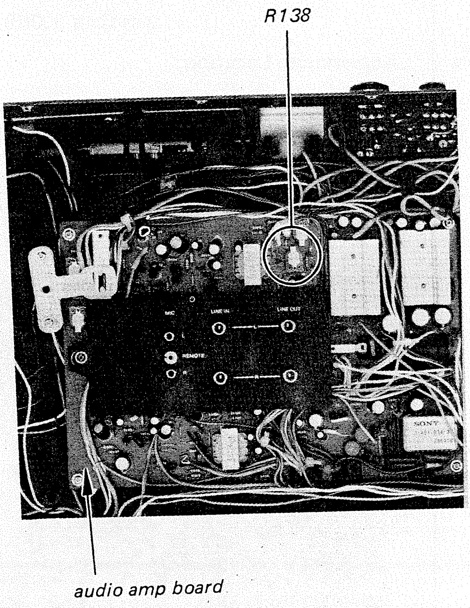
1. Mode: playback

test tape
P-4-L81
(333Hz, 0dB)



Adjust R138 so that level meter indication of L-CH becomes the same as R-CH.

Adjustment Location:


R138
audio amp board

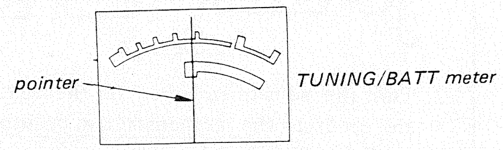
Battery Meter Calibration

Setting:

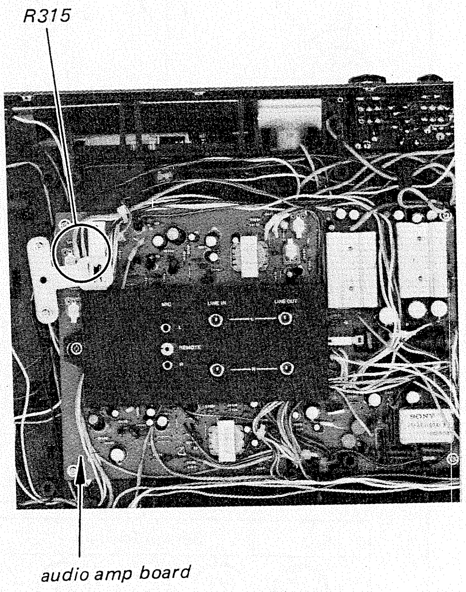
Power supply voltage:	8.8V dc
function switch:	TAPE/MIC
VOLUME control:	minimum

Procedure:

1. Mode: playback with no cassette loaded
2. Adjust R315 for specified pointer position on the TUNING/BATT meter as shown.


pointer
TUNING/BATT meter

Adjustment Location:


R315
audio amp board

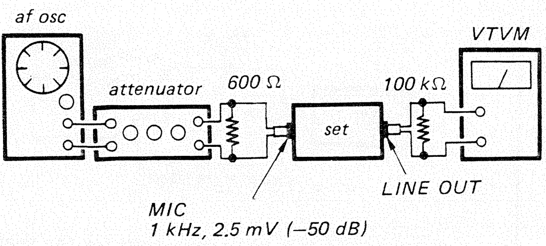
AGC Balance Adjustment

Setting:

function switch: TAPE/MIC
MODE switch: STEREO

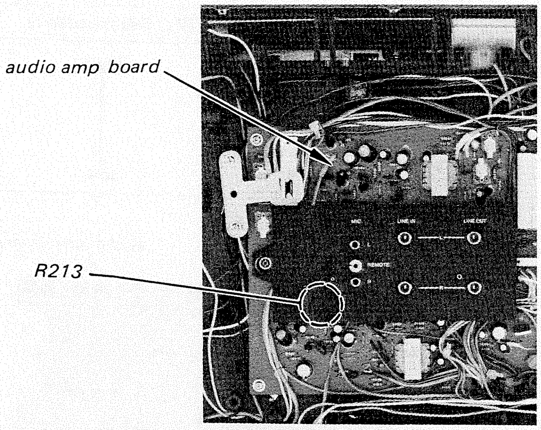
Procedure:

1. Mode: record


af osc
VTVM
attenuator
600 Ω
100 kΩ
set
LINE OUT
MIC
1 kHz, 2.5 mV (–50 dB)

2. Adjust R213 so that LINE OUT of R-CH becomes the same level as L-CH.

Adjustment Location:


audio amp board
R213

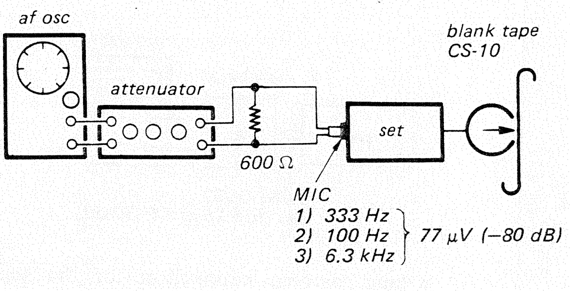
Record Bias Adjustment

Setting:

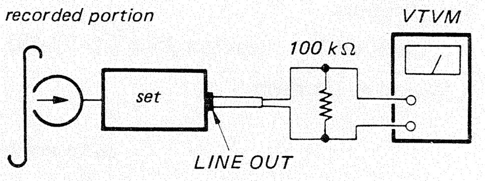
function switch: TAPE/MIC
TAPE SELECT switch: NORMAL

Procedure:

1. Mode: record


af osc
blank tape
CS-10
attenuator
set
600 Ω
MIC
1) 333 Hz
2) 100 Hz
3) 6.3 kHz
77 μV (–80 dB)

2. Mode: playback

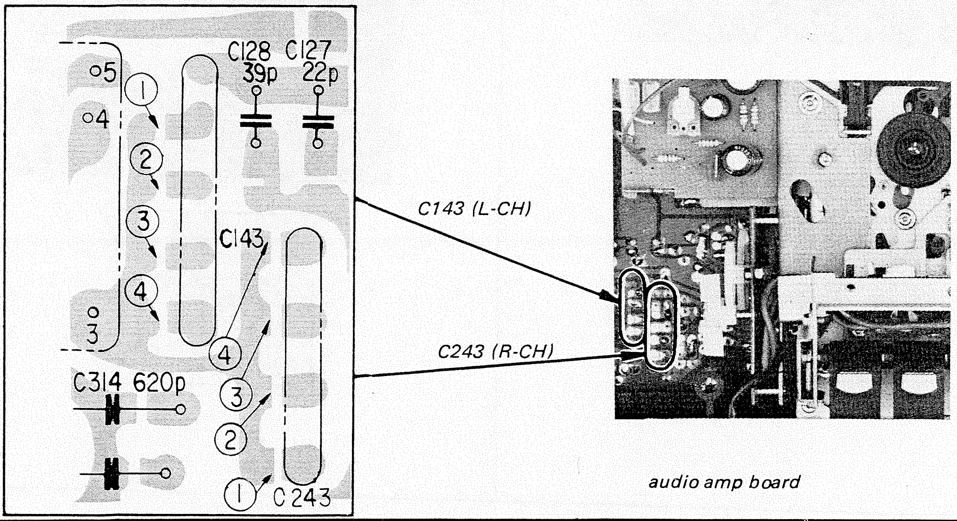

recorded portion
VTVM
100 kΩ
set
LINE OUT

Specification:

100 Hz and 6.3 kHz level difference from 333 Hz: 0 dB ± 1.5 dB

Adjustment Location:

Pattern connection	6.3 kHz VTVM reading
①	down
②	↕
③	
④	up


5
4
3
①
②
③
④
C128 39p
C127 22p
C143
C314 620p
④
③
②
①
C 243
C143 (L-CH)
C243 (R-CH)
audio amp board

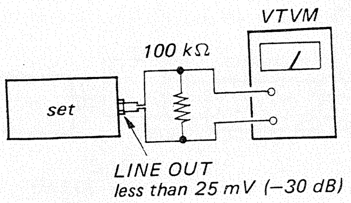
Bias Trap Adjustment

Setting:

function switch: LINE IN
AFC/ISS switch: OFF

Procedure:

Mode: record (no signal input)

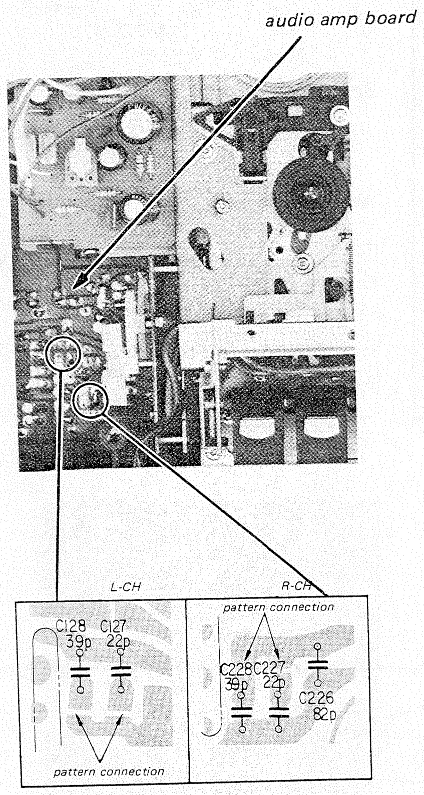

VTVM
100 kΩ
set
LINE OUT
less than 25 mV (−30 dB)

Adjust pattern connection for the specified reading on VTVM.

Specification:

LINE OUT: less than 25 mV (−30 dB)

Adjustment Location:


audio amp board
L-CH
R-CH
C128 39p
C127 22p
pattern connection
pattern connection
C228 39p
C227 22p
C226 82p

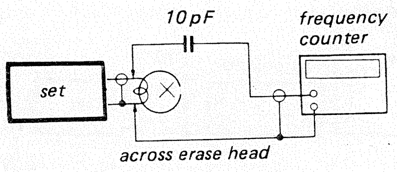
Bias Osc Frequency Adjustment

Setting:

function switch: TAPE/MIC
AFC/ISS switch: OFF

Procedure:

Mode: record (no signal input)


10pF
frequency counter
set
across erase head

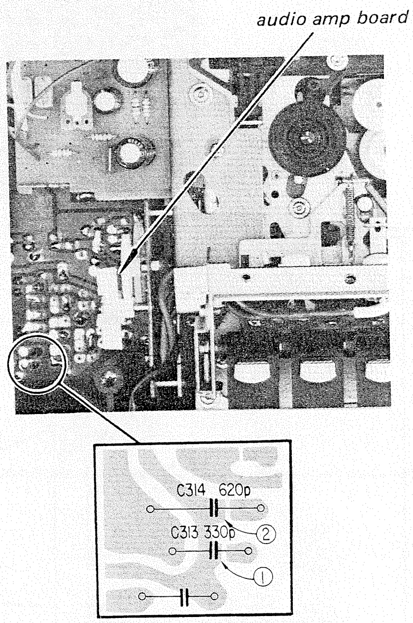
Adjust the pattern connection for the specified reading on frequency counter.

Specification:

frequency counter: 81.9 ~ 87 kHz

Adjustment Location:

Pattern connection	Bias Osc frequency
Open	high
①	↕
②	
① and ②	low

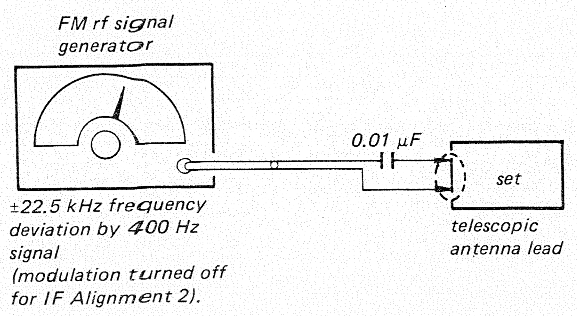

audio amp board
C314 620p
C313 330p
②
①

3-3. RADIO SECTION

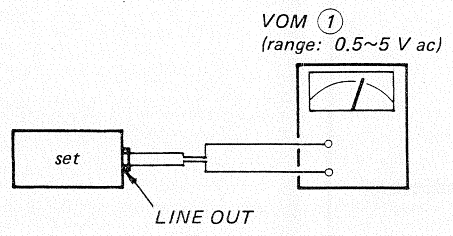
1) FM

Setting:

function switch: RADIO
band select switch: FM


FM rf signal generator
0.01 μF
set
telescopic antenna lead

±22.5 kHz frequency deviation by 400 Hz signal (modulation turned off for IF Alignment 2).


VOM ①
(range: 0.5~5 V ac)
set
LINE OUT

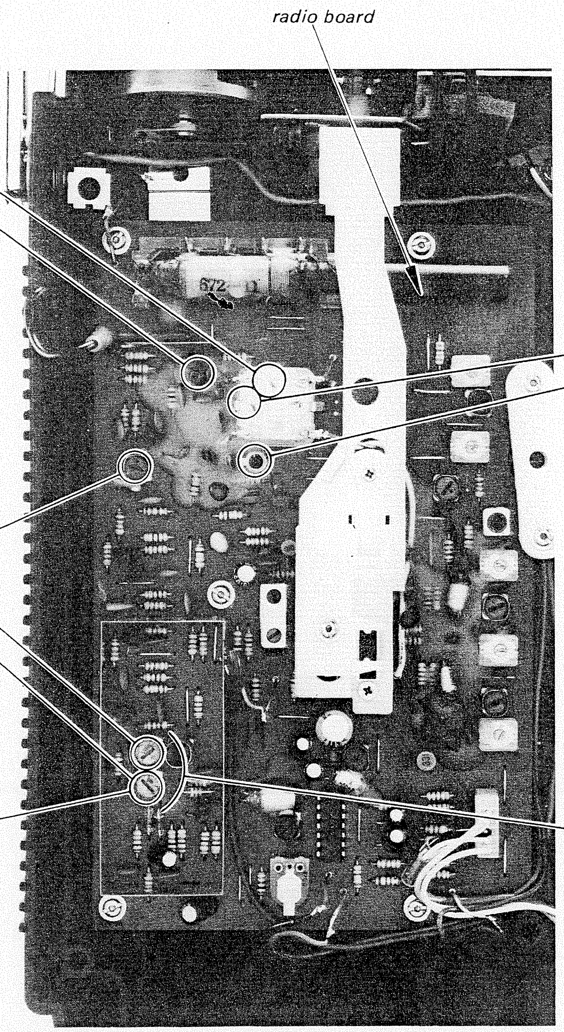
Note:

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

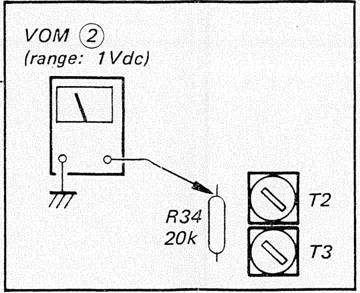
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM ①	
108.5 MHz	CT1
87.1 MHz	L1

FM IF ALIGNMENT 1 (10.7 MHz with modulation)
Adjust for a maximum reading on VOM ①
T1
T2
T3

FM IF ALIGNMENT 2 (10.7 MHz with no modulation)
Adjust for 0V reading on VOM ②
T3


radio board

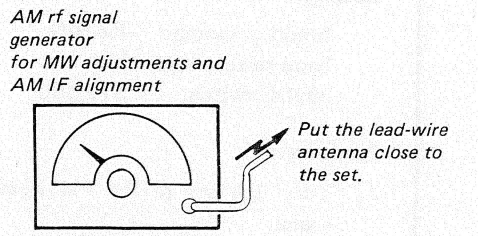
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM ①	
CT2	108.5 MHz
L2	87.1 MHz


VOM ②
(range: 1Vdc)
R34
20k
T2
T3

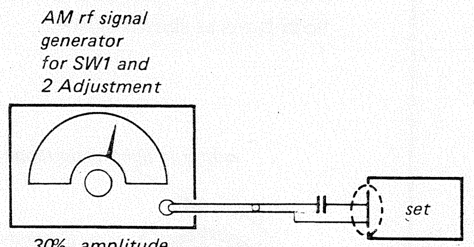
2) MW, SW1 and SW2

Setting:

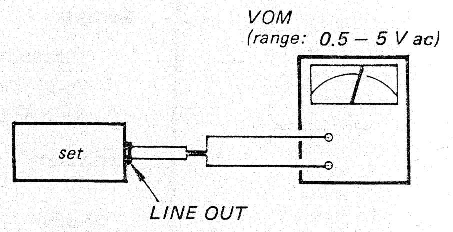
function switch: RADIO
band select switch: MW, SW1 or SW2


AM rf signal generator for MW adjustments and AM IF alignment
Put the lead-wire antenna close to the set.

30% amplitude modulation by 400 Hz signal


AM rf signal generator for SW1 and 2 Adjustment
set
telescopic antenna lead

30% amplitude modulation by 400 Hz signal


VOM
(range: 0.5 – 5 V ac)
set
LINE OUT

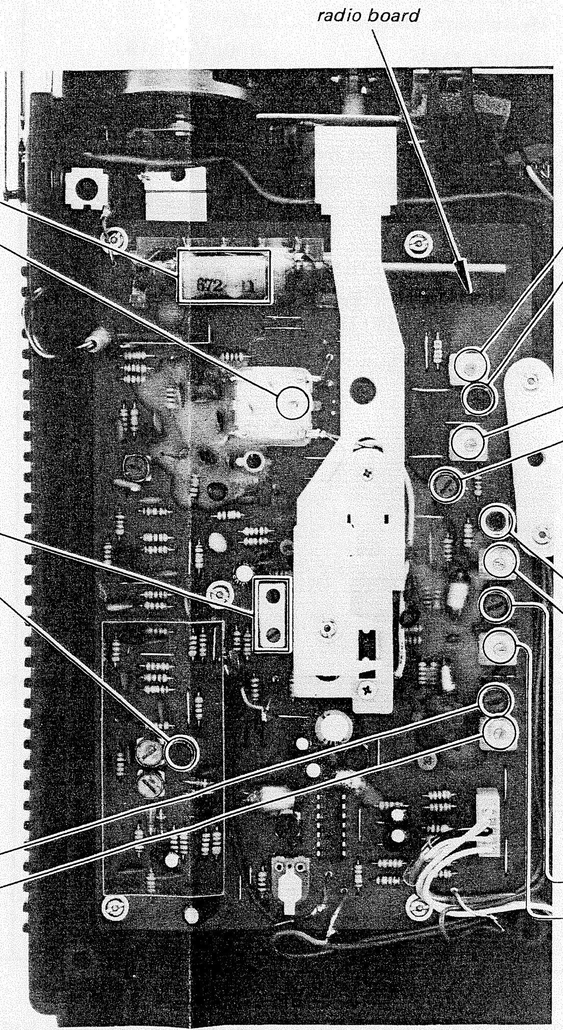
Note:

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM	
620 kHz	ANT2
1,400 kHz	CT3

AM IF ALIGNMENT	
Adjust for a maximum reading on VOM	
455 kHz	T12
	T4

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM	
520 kHz	T9
1,680 kHz	CT8


radio board

SW2 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM	
CT5	18.4 MHz
T5	5.8 MHz

SW1 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM	
CT4	6.3 MHz
T6	2.2 MHz

SW2 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM	
T7	5.8 MHz
CT6	18.4 MHz

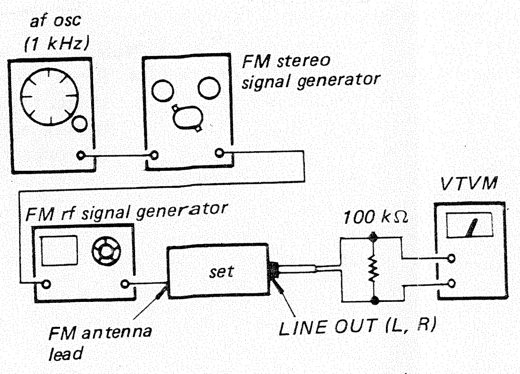
SW1 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM	
T8	2.2 MHz
CT7	6.3 MHz

FM Stereo Separation Adjustment

Setting:

function switch: RADIO
band select switch: FM
MODE switch: STEREO

Procedure:


af osc
(1 kHz)
FM stereo
signal generator
VTVM
FM rf signal generator
100 kΩ
set
FM antenna
lead
LINE OUT (L, R)

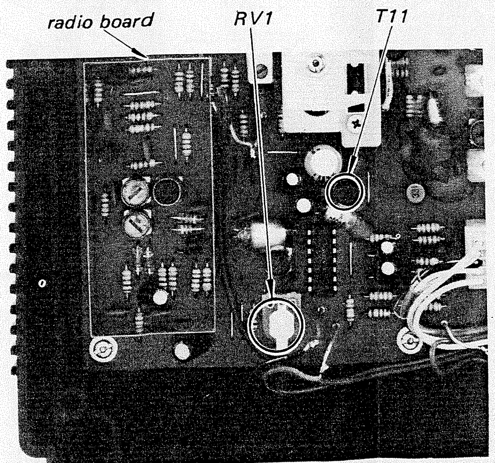
Carrier frequency: 98 MHz
Modulation frequency: 1 kHz
Output level: 1,000μV (60dB)

1. With L-CH (or R-CH) input signal, ajdust T11 for maximum output level at LINE OUT L-CH (or R-CH).
2. With L-CH input signal, adjust RV1 for minimum output level at LINE OUT R-CH.

Specification:

Level difference between step 1 and 2 should be more than 28 dB. If not, repeat the above steps.

Adjustment Location:


radio board
RV1
T11

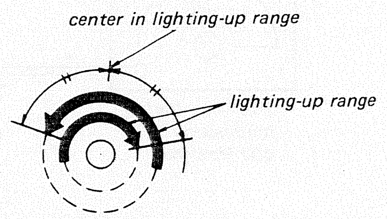
19 kHz Adjustment.

Setting:

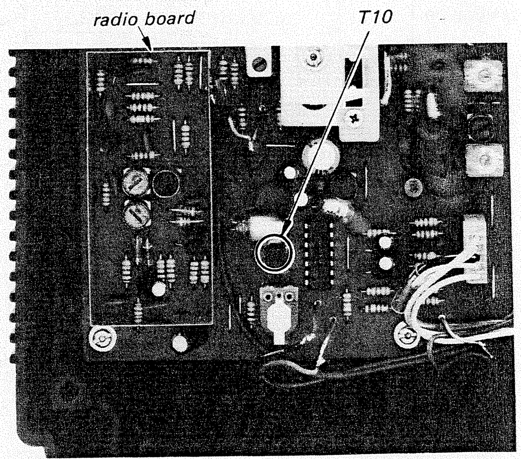
function switch: RADIO
band select switch: FM
MODE switch: STEREO

Procedure:

1. Tune the set to the FM stereo braodcasting signal.
2. Turn T10 clockwise or counterclockwise and memorize the lighting-up range of stereo lamp.
3. Secure T10 at the center in lighting-up range of both turns as shown below.


center in lighting-up range
lighting-up range

Adjustment Location:


radio board
T10

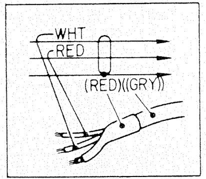
SECTION 4
DIAGRAMS

4-1. MOUNTING DIAGRAM

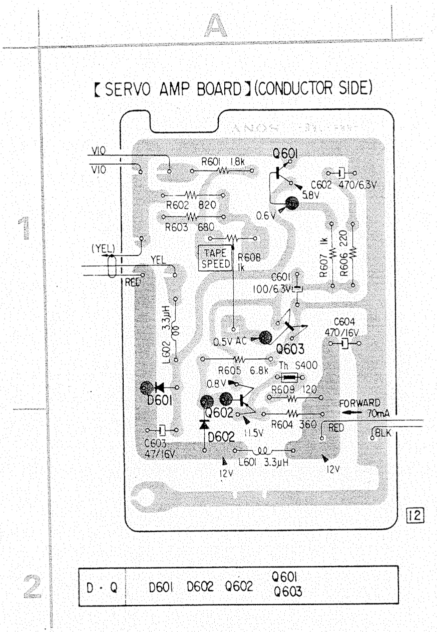
– Servo Amp, Radio and Audio Amp Boards –

Note:

- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)((GRY))

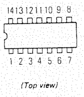
- ■ : part mounted on the conductor side.
- ⊏▪← : indicates side identified with part number.
- ▨ : B+ pattern
- Readings are taken under no-signal conditions with a VOM (20kΩ/V).
  ( ) : RECORD
  < >: AM
  no mark : FM or PLAYBACK


A
1
2
[SERVO AMP BOARD] (CONDUCTOR SIDE)
VIO
VIO
(YEL)
YEL
RED
R601 18k
R602 820
R603 680
Q601
C602 470/6.3V
5.8V
0.6V
TAPE SPEED
R606
R607 1k
R608 220
C601 100/6.3V
L602 3.3μH
0.5V AC
Q603
C604 470/16V
R605 6.8k
R609 120
5400
D601
0.8V
Q602
11.5V
R604 360
FORWARD 70mA
RED
BLK
C603 47/16V
D602
L601 3.3μH
12V
12V
12
D · Q
D601 D602 Q602 Q601 Q603

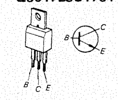
Replacement Semiconductors

For replacement, use smeiconductors except in ( ).

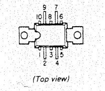
IC1: LA3301


14 13 12 11 10 9 8
1 2 3 4 5 6 7
(Top view)

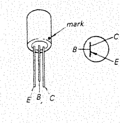
Q601: 2SC1761



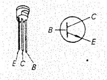
IC101, 201: HA1306W


9 7
10 8 6
1 3 5
2 4
(Top view)

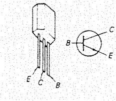
Q602, 3SB324 (2SA475)


mark
C B E
E B C

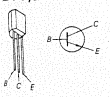
Q1, 8: 2SC930



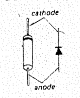
D1: 2SC634A



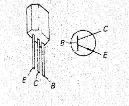
Q4-7,9: 2SC710



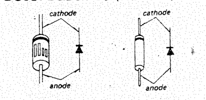
D2,3 : 1T261
D4,5 : 1T22A
D101,201,602 : 1S1555 (1T40)
D102, 103 : } 1T22A (1T22)
D202,203,304 : }
D301,302 : 10E2
D601 : 10E2 (10E1)


cathode
anode

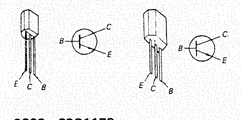
Q101,201 : 2SC632A (2SC631A)
Q103,105 : }
Q106,203 : } 2SC634A (2SC633A)
Q205,206,301 : }
Q104,204 : 2SC632A (2SC631)
Q303,603 : 2SC634A (2SC633)



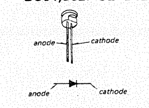
D303: EQB01-08 (RD7.5E)


cathode
anode
cathode
anode

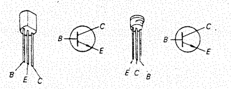
Q102,202: 2SC1364 (2SC633A)


C B E
E C B
C B E
E C B

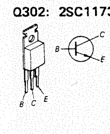
D901,902: SLP24B


anode
cathode
anode
cathode

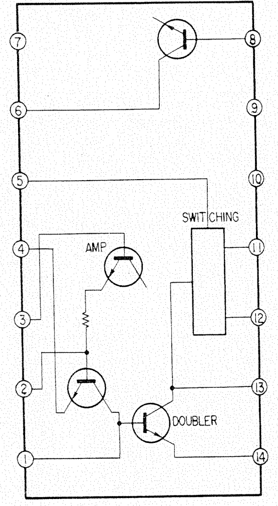
Q2, 3: 2SC1129 (2SC668)

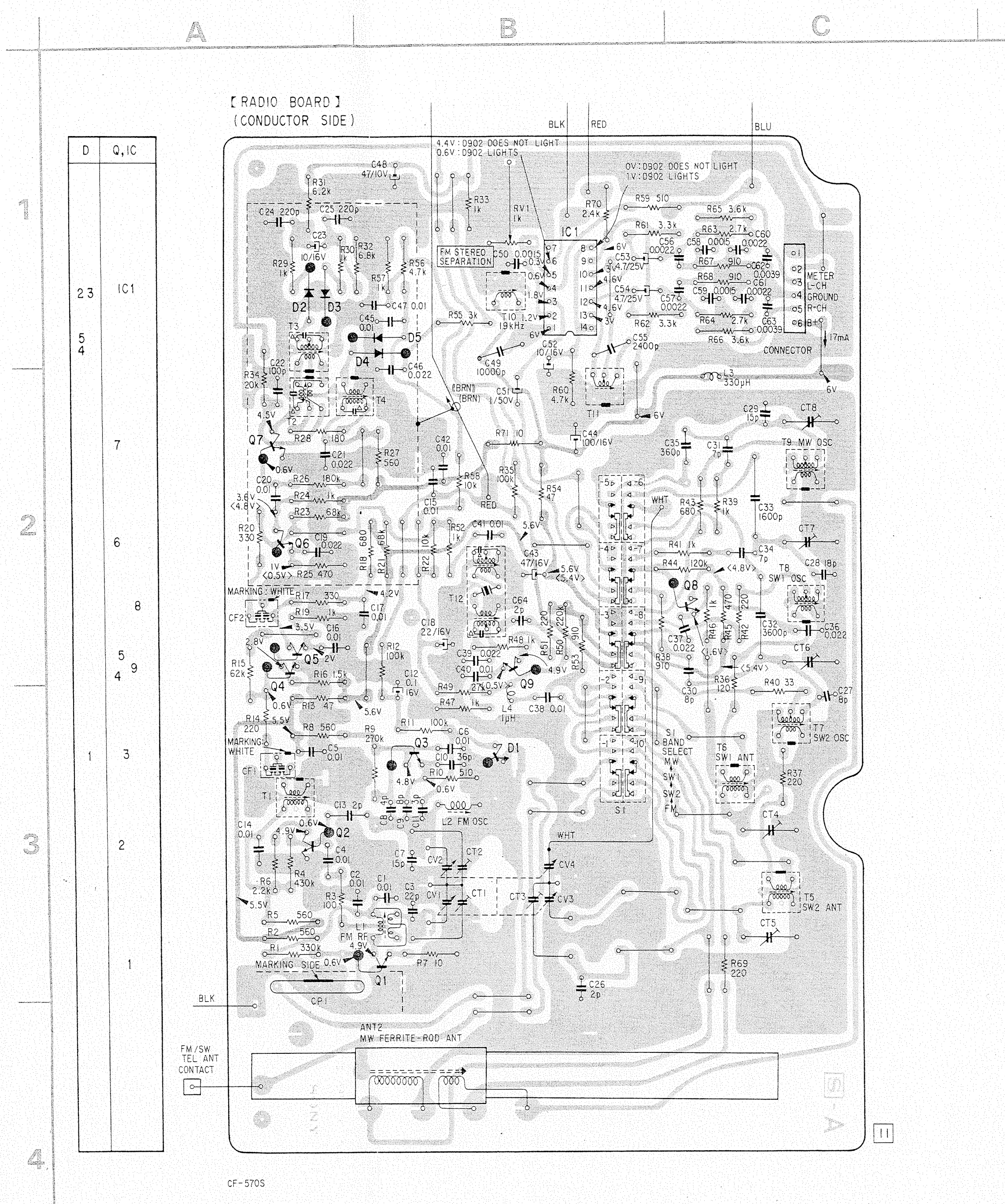

C B E
B E C
C B E
E C B

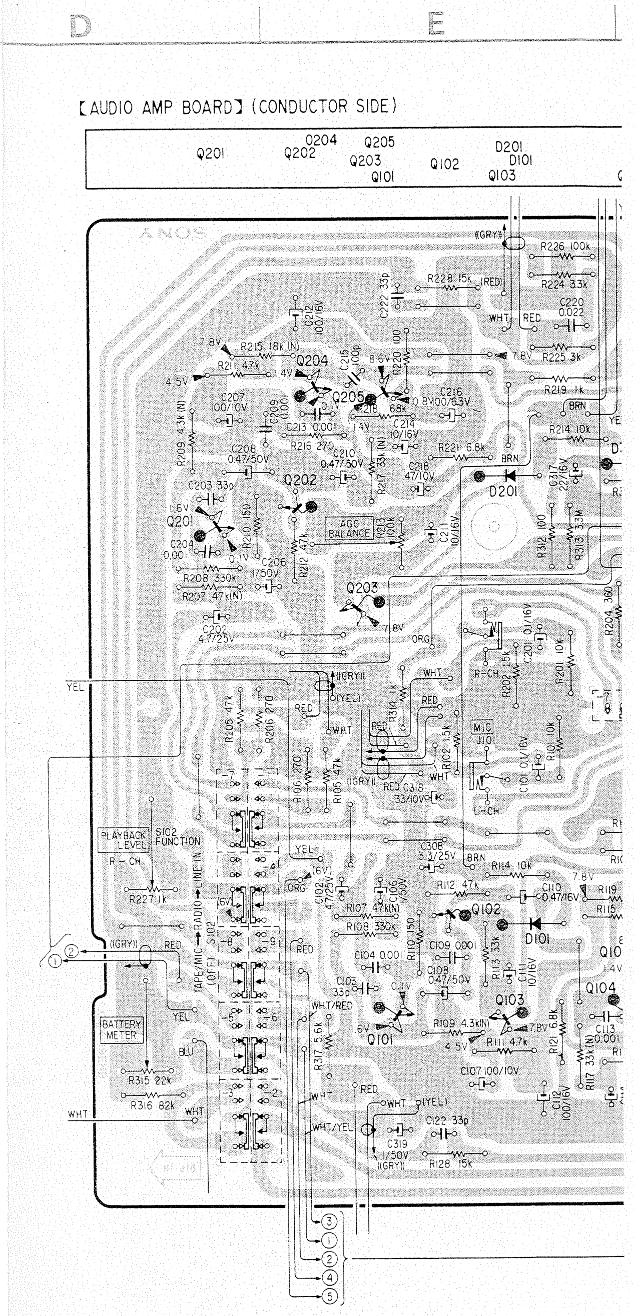
Q302: 2SC1173



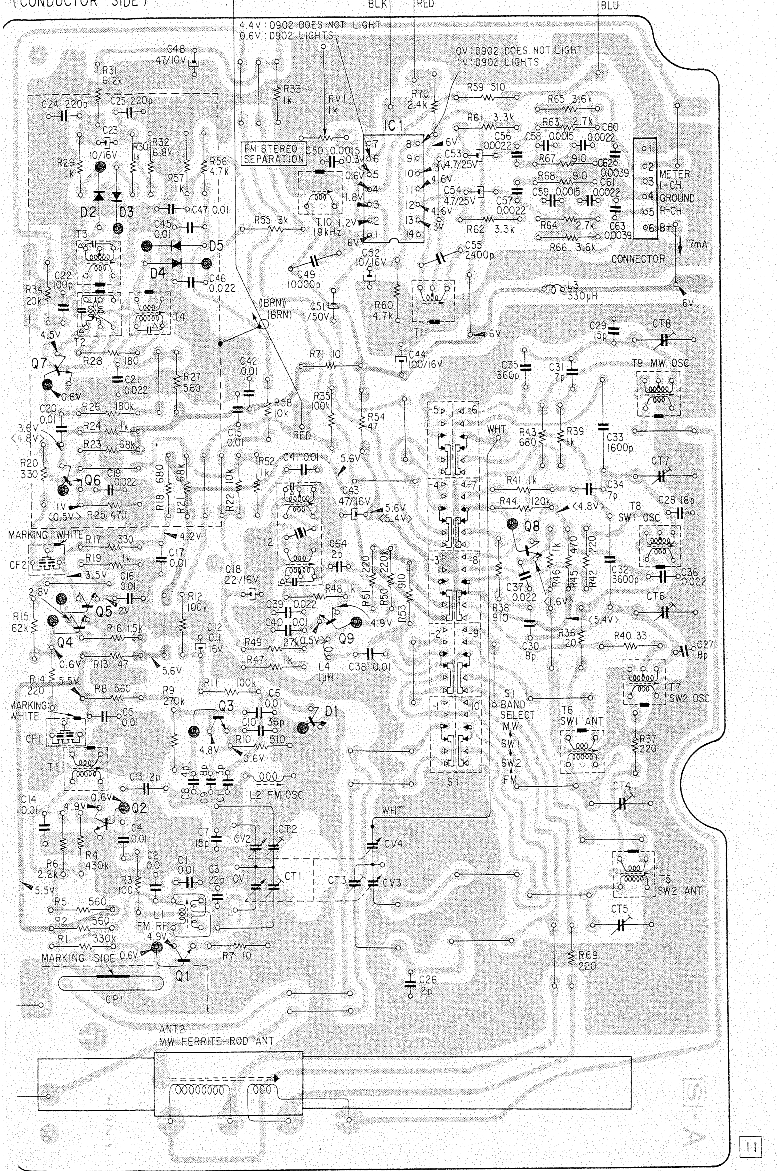
IC1 LA3301


1
2
3
4
5
6
7
8
9
10
11
12
13
14
AMP
SWITCHING
DOUBLER

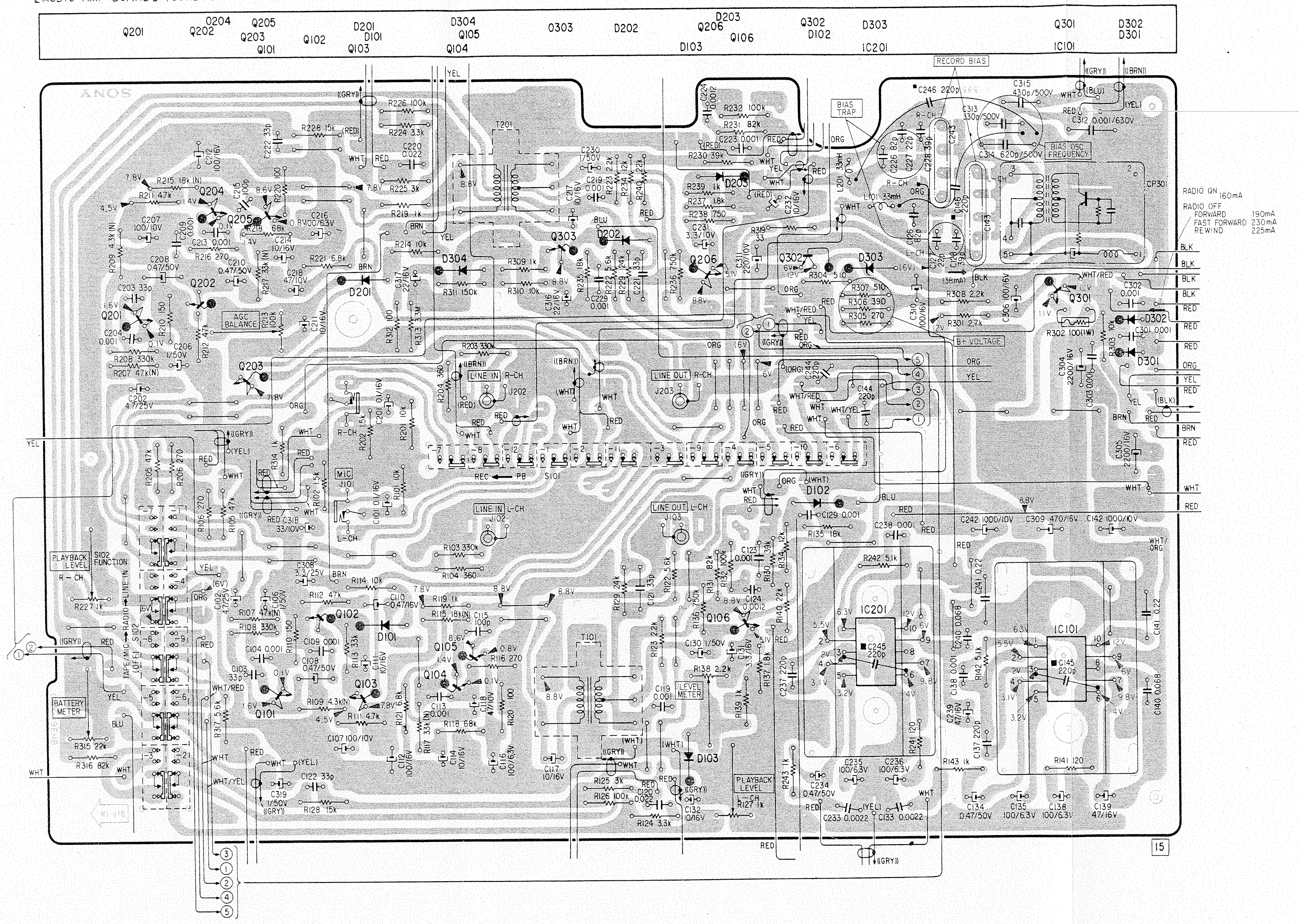

A
B
C
1
2
3
4
D
Q, IC
[RADIO BOARD]
(CONDUCTOR SIDE)
BLK
RED
BLU
4.4V : D902 DOES NOT LIGHT
0.6V : D902 LIGHTS
0V : D902 DOES NOT LIGHT
1V : D902 LIGHTS
IC1
FM STEREO SEPARATION
METER
L-CH
GROUND
R-CH
CONNECTOR
T9 MW OSC
T8 SW1 OSC
T7 SW2 OSC
T6 SW1 ANT
T5 SW2 ANT
S1 BAND SELECT
MW
SW1
SW2
FM
L2 FM OSC
FM RF
MARKING SIDE
MARKING WHITE
CP1
ANT2 MW FERRITE-ROD ANT
FM/SW TEL ANT CONTACT
BLK
WHT
11
CF-570S


D
E
[AUDIO AMP BOARD] (CONDUCTOR SIDE)
Q201
Q204
Q202
Q205
Q203
Q101
Q102
D201
D101
Q103
AGC BALANCE
PLAYBACK LEVEL
S102 FUNCTION
R-CH
L-CH
MIC J101
BATTERY METER
YEL
WHT
BLU
RED
1
2
3
4
5

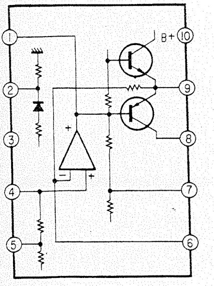
【RADIO BOARD】
(CONDUCTOR SIDE)


4.4V : D902 DOES NOT LIGHT
0.6V : D902 LIGHTS
0V : D902 DOES NOT LIGHT
1V : D902 LIGHTS
FM STEREO SEPARATION
IC1
METER
L-CH
GROUND
R-CH
CONNECTOR
T8 MW OSC
T8 SW1 OSC
T7 SW2 OSC
S1 BAND SELECT
T6 SW1 ANT
T5 SW2 ANT
L2 FM OSC
FM RF
MARKING SIDE
CP1
ANT2 MW FERRITE-ROD ANT
11

【AUDIO AMP BOARD】(CONDUCTOR SIDE)


Q201 Q202 Q204 Q203 Q101 Q205 Q102 D201 D101 Q103 D304 Q105 Q104 D303 D202 D206 D203 D103 Q106 Q302 D102 D303 IC201 Q301 IC101 D302 D301
RECORD BIAS
BIAS TRAP
BIAS OSC FREQUENCY
AGC BALANCE
B+ VOLTAGE
LINE IN R-CH
LINE OUT R-CH
LINE IN L-CH
LINE OUT L-CH
MIC J101
PLAYBACK LEVEL
S102 FUNCTION
TAPE/MIC·RADIO·LINE IN
BATTERY METER
LEVEL METER
PLAYBACK LEVEL
RADIO ON 160mA
RADIO OFF
FORWARD 190mA
FAST FORWARD 230mA
REWIND 225mA
CP301
S101
15

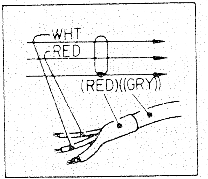
IC101,201
HA1306W



4-2. MOUNTING DIAGRAM

Note:

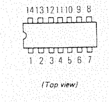
- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)(GRY)

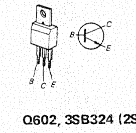
- ■ : part mounted on the conductor side.
- [ ]— : indicates side identified with part number.
- ▨ : B+ pattern
- Signal Path
  - — — —►: FM
  - —·—·—►: L-CH } audio playback
  - —··—··►: R-CH } audio playback
- Ⓕ : fusible resistor.
- Readings are taken under no-signal conditions with a VOM (20kΩ/V).
  ( ) : RECORD
  < >: AM
  no mark : FM or PLAYBACK

Replacement Semiconductors
For replacement, use smeiconductors except in ( ).

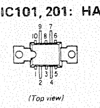
IC1: LA3301


14 13 12 11 10 9 8
1 2 3 4 5 6 7
(Top view)

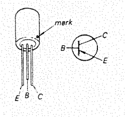
Q601: 2SC1761



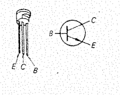
IC101, 201: HA1306W


9 7
10 8 6
1 3 5
2 4
(Top view)

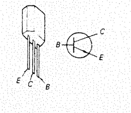
Q602, 3SB324 (2SA475)


mark
B
C
E
E B C

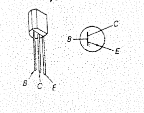
Q1, 8: 2SC930



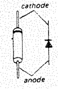
D1: 2SC634A



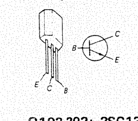
Q4-7,9: 2SC710



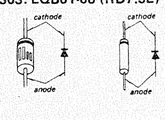
D2,3 : 1T261
D4,5 : 1T22A
D101,201,602 : 1S1555 (1T40)
D102, 103 : } 1T22A (1T22)
D202,203,304 : } 1T22A (1T22)
D301,302 : 10E2
D601 : 10E2 (10E1)


cathode
anode

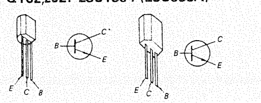
Q101,201 : 2SC632A (2SC631A)
Q103,105 : } 2SC634A (2SC633A)
Q106,203 : } 2SC634A (2SC633A)
Q205,206,301 : } 2SC634A (2SC633A)
Q104,204 : 2SC632A (2SC631)
Q303,603 : 2SC634A (2SC633)



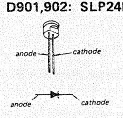
D303: EQB01-08 (RD7.5E)


cathode
anode
cathode
anode

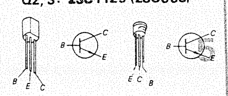
Q102,202: 2SC1364 (2SC633A)


B
C
E
E C B
B
C
E
E C B

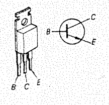
D901,902: SLP24B

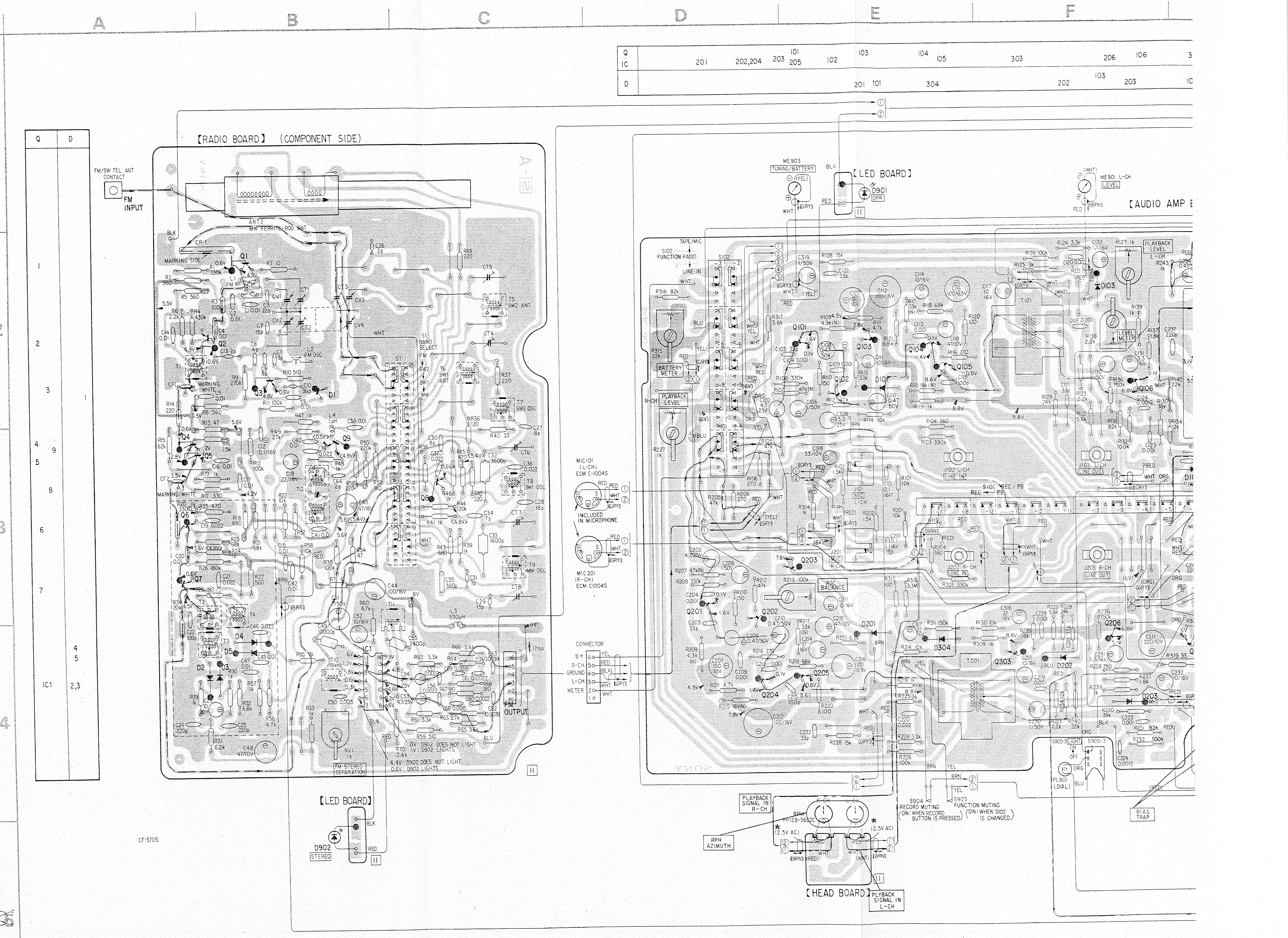

anode
cathode
anode
cathode

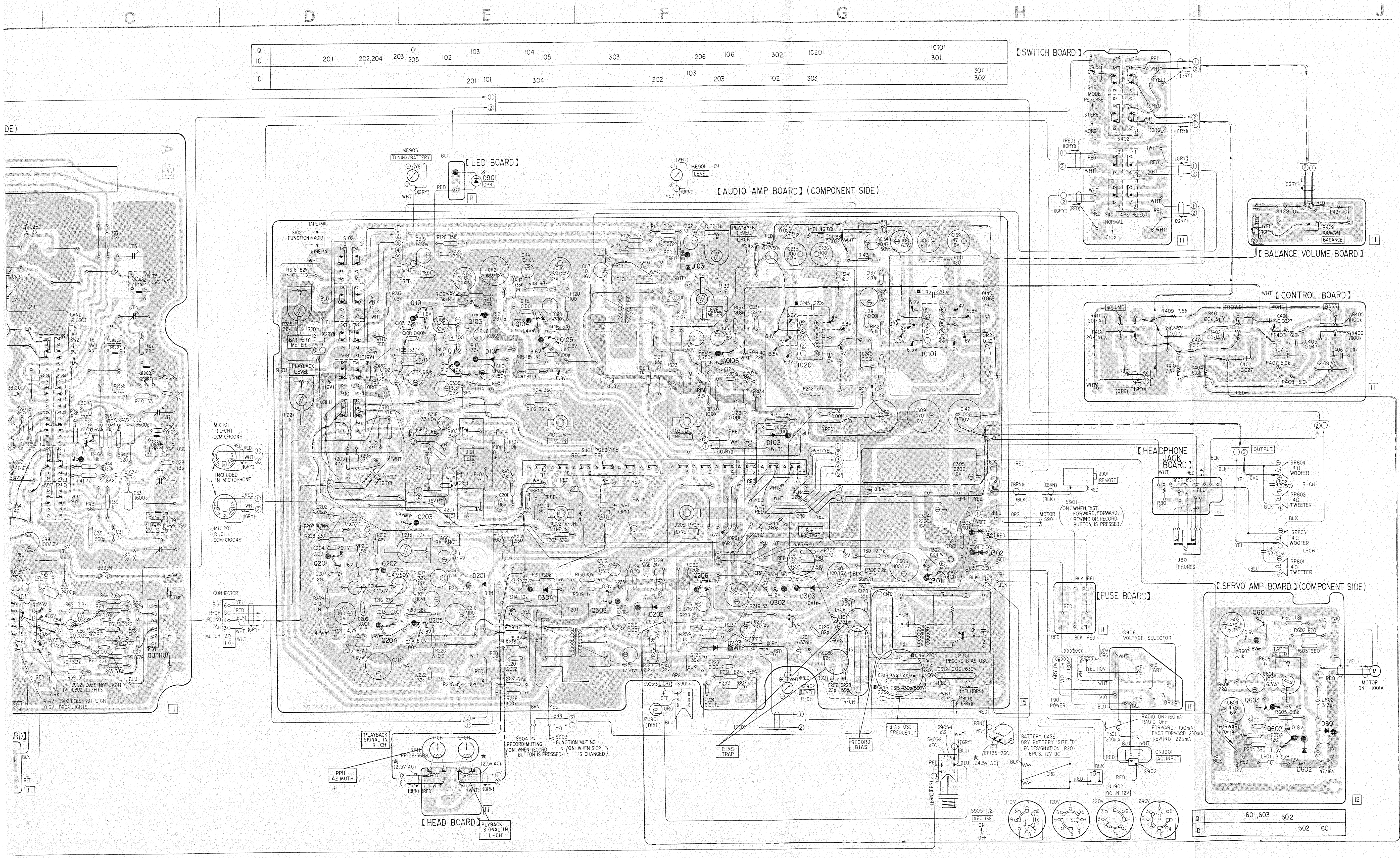
Q2, 3: 2SC1129 (2SC668)


B
C
E
B E C
B
C
E
E C B

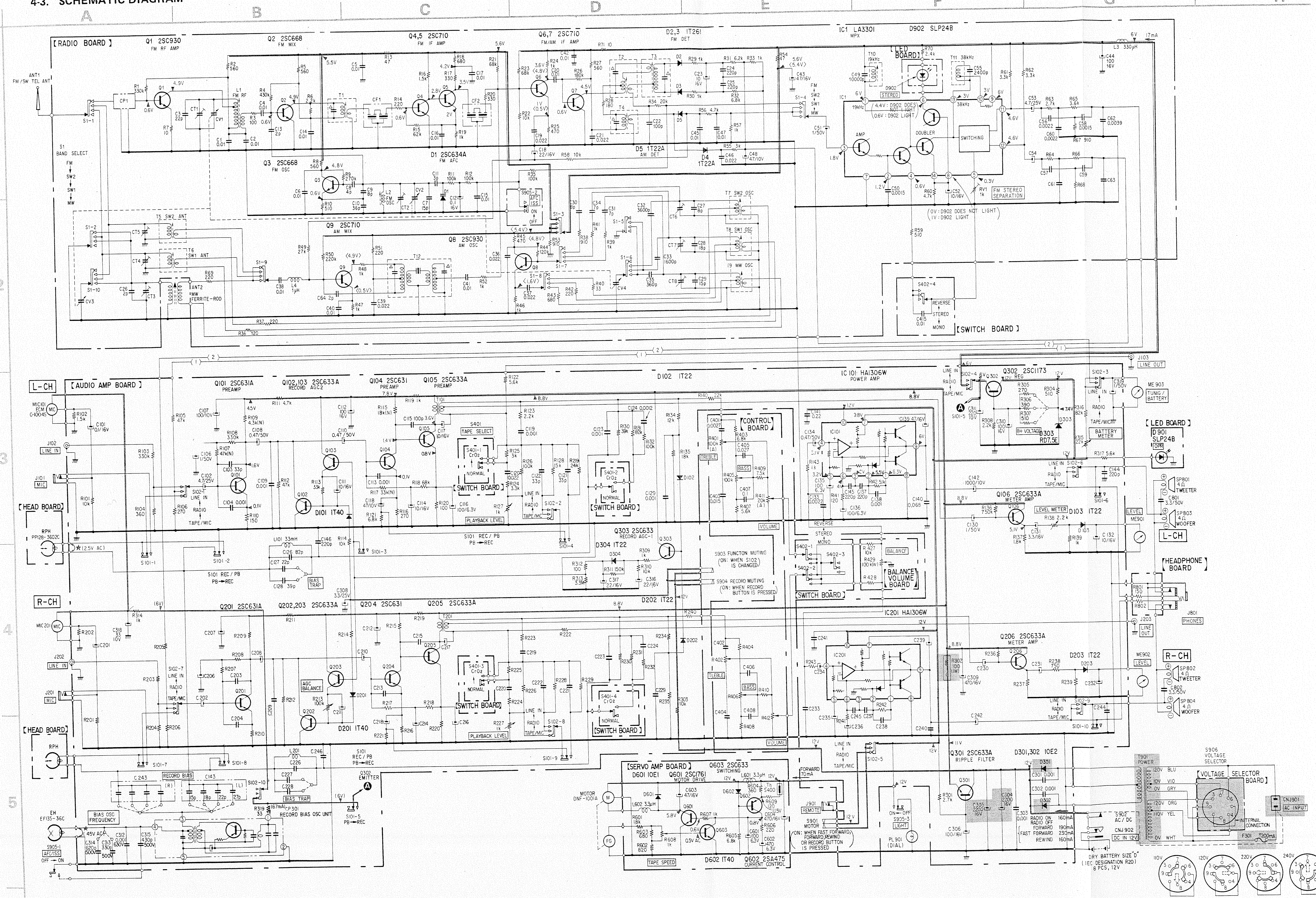
Q302: 2SC1173

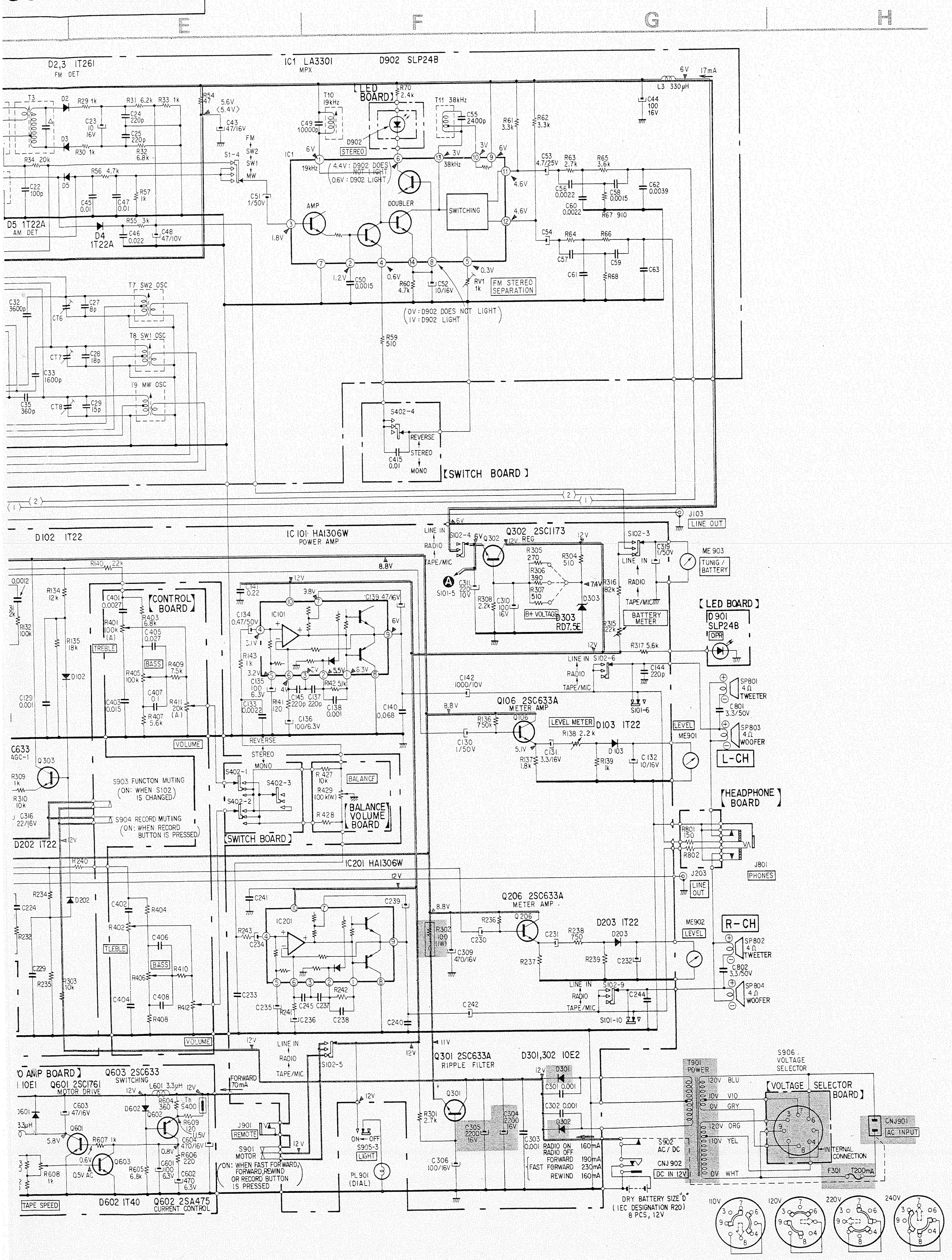



A
B
C
D
E
F
1
2
3
4
Q
IC
D
[RADIO BOARD] (COMPONENT SIDE)
FM/SW TEL ANT CONTACT
FM INPUT
ANT2 MW FERRITE ROD ANT
MARKING SIDE
S1 BAND SELECT
IC1
FM STEREO SEPARATION
[LED BOARD]
D902 STEREO
[LED BOARD]
D901 OPR
ME903 TUNING/BATTERY
ME901 L-CH LEVEL
[AUDIO AMP
MIC101 (L-CH) ECM C1004S
INCLUDED IN MICROPHONE
MIC201 (R-CH) ECM C1004S
CONNECTOR
B+
R-CH
GROUND
L-CH
METER
S102 FUNCTION RADIO
TAPE/MIC
LINE IN
BATTERY METER
PLAYBACK LEVEL
S101 REC/PB
BALANCE
J101 MIC L-CH
J201 MIC R-CH
J102 L-CH LINE IN
J202 R-CH LINE IN
J103 L-CH LINE OUT
J203 R-CH LINE OUT
T101
T201
PLAYBACK SIGNAL IN R-CH
RPH AZIMUTH
[HEAD BOARD]
PLAYBACK SIGNAL IN L-CH
S904 RECORD MUTING (ON: WHEN RECORD BUTTON IS PRESSED)
S903 FUNCTION MUTING (ON: WHEN S102 IS CHANGED)
PL901 (DIAL)
BIAS TRAP
CF-570S


C
D
E
F
G
H
I
J
Q
IC
D
[SWITCH BOARD]
S402 MODE REVERSE
STEREO
MONO
S401 TAPE SELECT
NORMAL
CrO2
[BALANCE VOLUME BOARD]
BALANCE
[CONTROL BOARD]
VOLUME
TREBLE
TONE
BASS
[LED BOARD]
D901 OPR
ME903 TUNING/BATTERY
ME901 L-CH LEVEL
[AUDIO AMP BOARD] (COMPONENT SIDE)
S102 FUNCTION RADIO
TAPE/MIC
LINE IN
BATTERY METER
PLAYBACK LEVEL
MIC101 (L-CH) ECM C-1004S
INCLUDED IN MICROPHONE
MIC201 (R-CH) ECM C1004S
CONNECTOR
B+
R-CH
GROUND
L-CH
METER
OUTPUT
S101 REC / PB
J102 L-CH LINE IN
J103 L-CH LINE OUT
J207 R-CH LINE IN
J208 R-CH LINE OUT
ASC BALANCE
B+ VOLTAGE
IC101
IC201
CP301 RECORD BIAS OSC
BIAS TRAP
RECORD BIAS
BIAS OSC FREQUENCY
ME902 LEVEL
PL901 (DIAL)
PLAYBACK SIGNAL IN R-CH
PLAYBACK SIGNAL IN L-CH
RPH AZIMUTH
[HEAD BOARD]
S904 RECORD MUTING (ON: WHEN RECORD BUTTON IS PRESSED)
S903 FUNCTION MUTING (ON: WHEN S102 IS CHANGED)
[HEADPHONE JACK BOARD]
J801 PHONES
OUTPUT
SP804 4Ω WOOFER
SP802 4Ω TWEETER
SP803 4Ω WOOFER
SP801 4Ω TWEETER
J901 REMOTE
S901 (ON: WHEN FAST FORWARD, REWIND OR RECORD BUTTON IS PRESSED)
MOTOR S901
[FUSE BOARD]
S906 VOLTAGE SELECTOR
T901 POWER
F301 T200mA
RADIO ON: 160mA
RADIO OFF
FORWARD 190mA
FAST FORWARD 230mA
REWIND 225mA
CNJ901 AC INPUT
CNJ902 DC IN 12V
S902
BATTERY CASE DRY BATTERY SIZE "D" (IEC DESIGNATION R20) 8PCS. 12V DC
S905-1 ISS
S905-2 AFC
S905-1, 2 AFC ISS
ON
OFF
EH EF135-36C
110V
120V
220V
240V
[SERVO AMP BOARD] (COMPONENT SIDE)
TAPE SPEED
MOTOR DNF-1001A
FORWARD 70mA
Q
601,603
602
D
602
601
4.4V: D902 DOES NOT LIGHT
0.6V: D902 LIGHTS
0V: D902 DOES NOT LIGHT
1V: D902 LIGHTS

4-3. SCHEMATIC DIAGRAM


A
B
C
D
E
F
G
H
1
2
3
4
5
[RADIO BOARD]
Q1 2SC930 FM RF AMP
Q2 2SC668 FM MIX
Q4,5 2SC710 FM IF AMP
Q6,7 2SC710 FM/AM IF AMP
D2,3 1T261 FM DET
IC1 LA3301 MPX
D902 SLP24B
ANT1 FM/SW TEL ANT
S1 BAND SELECT
FM
SW2
SW1
MW
Q3 2SC668 FM OSC
D1 2SC634A FM AFC
D5 1T22A AM DET
D4 1T22A
Q9 2SC710 AM MIX
Q8 2SC930 AM OSC
T5 SW2 ANT
T6 SW1 ANT
ANT2 MW FERRITE-ROD
T7 SW2 OSC
T8 SW1 OSC
T9 MW OSC
[LED BOARD]
STEREO
AMP
DOUBLER
SWITCHING
FM STEREO SEPARATION
(0V: D902 DOES NOT LIGHT)
(1V: D902 LIGHT)
S402-4
REVERSE
STEREO
MONO
[SWITCH BOARD]
L-CH
[AUDIO AMP BOARD]
Q101 2SC631A PREAMP
Q102,103 2SC633A RECORD AGC2
Q104 2SC631 PREAMP
Q105 2SC633A PREAMP
D102 1T22
IC101 HA1306W POWER AMP
Q302 2SC1173 REG
J103 LINE OUT
ME903 TUNING/BATTERY
[LED BOARD]
D901 SLP24B
MIC101 ECM C-100-45
J102 LINE IN
J101 MIC
[HEAD BOARD]
RPH PP128-3602C
D101 1T40
S401 TAPE SELECT
[SWITCH BOARD]
PLAYBACK LEVEL
[CONTROL BOARD]
TREBLE
BASS
VOLUME
D303 RD7.5E
B+ VOLTAGE
BATTERY METER
Q106 2SC633A METER AMP
LEVEL METER
D103 1T22
ME901
SP801 4Ω TWEETER
SP803 4Ω WOOFER
Q303 2SC633 RECORD AGC-1
D304 1T22
S903 FUNCTION MUTING (ON: WHEN S102 IS CHANGED)
S904 RECORD MUTING (ON: WHEN RECORD BUTTON IS PRESSED)
BALANCE
[BALANCE VOLUME BOARD]
[HEADPHONE BOARD]
J801 PHONES
R-CH
MIC201
J202 LINE IN
J201 MIC
Q201 2SC631A
Q202,203 2SC633A
Q204 2SC631
Q205 2SC633A
D202 1T22
IC201 HA1306W
D201 1T40
AGC BALANCE
Q206 2SC633A METER AMP
D203 1T22
ME902 LEVEL
SP802 4Ω TWEETER
SP804 4Ω WOOFER
J203 LINE OUT
RECORD BIAS
BIAS TRAP
BIAS OSC FREQUENCY
EH EF135-36C
S905-1 AFC/ISS OFF ON
RECORD BIAS OSC UNIT
Q302 EMITTER
S101-5 PB→REC
[SERVO AMP BOARD]
D601 10E1
Q601 2SC1761 MOTOR DRIVE
Q603 2SC633 SWITCHING
MOTOR DNF-1001A
TAPE SPEED
D602 1T40
Q602 2SA475 CURRENT CONTROL
J901 REMOTE
S901 MOTOR
(ON: WHEN FAST FORWARD, FORWARD, REWIND OR RECORD BUTTON IS PRESSED)
S905-3 LIGHT
PL901 (DIAL)
Q301 2SC633A RIPPLE FILTER
D301,302 10E2
RADIO ON 160mA
RADIO OFF
FORWARD 190mA
FAST FORWARD 230mA
REWIND 160mA
S902 AC/DC
CNJ902 DC IN 12V
DRY BATTERY SIZE "D" (IEC DESIGNATION R20) 6 PCS, 12V
T901 POWER
S906 VOLTAGE SELECTOR
[VOLTAGE SELECTOR BOARD]
CNJ901 AC INPUT
INTERNAL CONNECTION
F301 T200mA
110V
120V
220V
240V


E
F
G
H
D2,3 1T261 FM DET
IC1 LA3301 MPX
D902 SLP24B
LED BOARD
STEREO
AMP
DOUBLER
SWITCHING
FM STEREO SEPARATION
(0V : D902 DOES NOT LIGHT)
(1V : D902 LIGHT)
D5 1T22A AM DET
D4 1T22A
T7 SW2 OSC
T8 SW1 OSC
T9 MW OSC
S402-4
REVERSE
STEREO
MONO
SWITCH BOARD
D102 1T22
IC101 HA1306W POWER AMP
Q302 2SC1173 12V REG
J103 LINE OUT
ME903 TUNG/BATTERY
BATTERY METER
LED BOARD
D901 SLP24B
CONTROL BOARD
TREBLE
BASS
VOLUME
Q106 2SC633A METER AMP
LEVEL METER
D103 1T22
SP801 4Ω TWEETER
SP803 4Ω WOOFER
L-CH
S903 FUNCTION MUTING (ON: WHEN S102 IS CHANGED)
S904 RECORD MUTING (ON: WHEN RECORD BUTTON IS PRESSED)
BALANCE
BALANCE VOLUME BOARD
HEADPHONE BOARD
J801 PHONES
D202 1T22
IC201 HA1306W
J203 LINE OUT
Q206 2SC633A METER AMP
D203 1T22
R-CH
SP802 4Ω TWEETER
SP804 4Ω WOOFER
AUDIO AMP BOARD
Q603 2SC633 SWITCHING
Q601 2SC1761 MOTOR DRIVE
D602 1T40
Q602 2SA475 CURRENT CONTROL
TAPE SPEED
J901 REMOTE
S901 MOTOR (ON: WHEN FAST FORWARD, FORWARD, REWIND OR RECORD BUTTON IS PRESSED)
S905-3 LIGHT
PL901 (DIAL)
Q301 2SC633A RIPPLE FILTER
D301,302 10E2
RADIO ON 160mA
RADIO OFF
FORWARD 190mA
FAST FORWARD 230mA
REWIND 160mA
DRY BATTERY SIZE "D" (IEC DESIGNATION R20) 8 PCS, 12V
T901 POWER
S906 VOLTAGE SELECTOR
VOLTAGE SELECTOR BOARD
S902 AC/DC
CNJ902 DC IN 12V
CNJ901 AC INPUT
INTERNAL CONNECTION
F301 T200mA
110V
120V
220V
240V

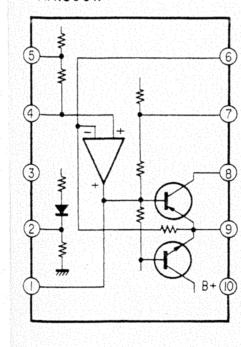
Note:

- Components for right channel have the same values as for left channel. Reference numbers are coded from 200.
- All capacitors are in μF unless otherwise noted. pF = μμF 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼ W unless otherwise noted. kΩ = 1000Ω, MΩ = 1000 kΩ
- —⊠— : fusible resistor.
- (N) : low-noise capacitor and resistor.
- △ : internal component.
- ——— : B+ bus.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- Transistor is used for D1.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (20kΩ/V).
  ( ) : RECORD
  < > : AM
  no mark : FM or PLAYBACK
- AC voltage readings indicated by * in the bias oscillator circuit are taken with a VTVM.
- Transistor base-emitter voltages are measured on the 2.5V range.
- Total current is measured with no cassette installed.
- Voltage variations may be noted due to normal production tolerances.
- Switch

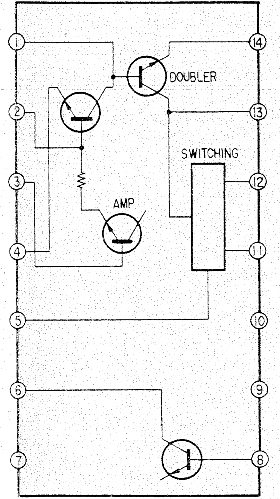
Ref. No.	Switch	Position
S1	BAND SELECT	FM
S101	REC/PB	PB
S102	FUNCTION	TAPE/MIC
S401	TAPE SELECT	NORMAL
S402	MODE	STEREO
S901	MOTOR	OFF
S902	AC/DC	DC
S903	FUNCTION MUTING	OFF
S904	RECORD MUTING	OFF
S905-1,2	AFC/ISS	OFF
S905-3,4	LIGHT	OFF
S906	VOLTAGE SELECTOR	—

Note: The components identified by shading are critical for safety. Replace only with part number specified.

IC101, 201
HA1306W

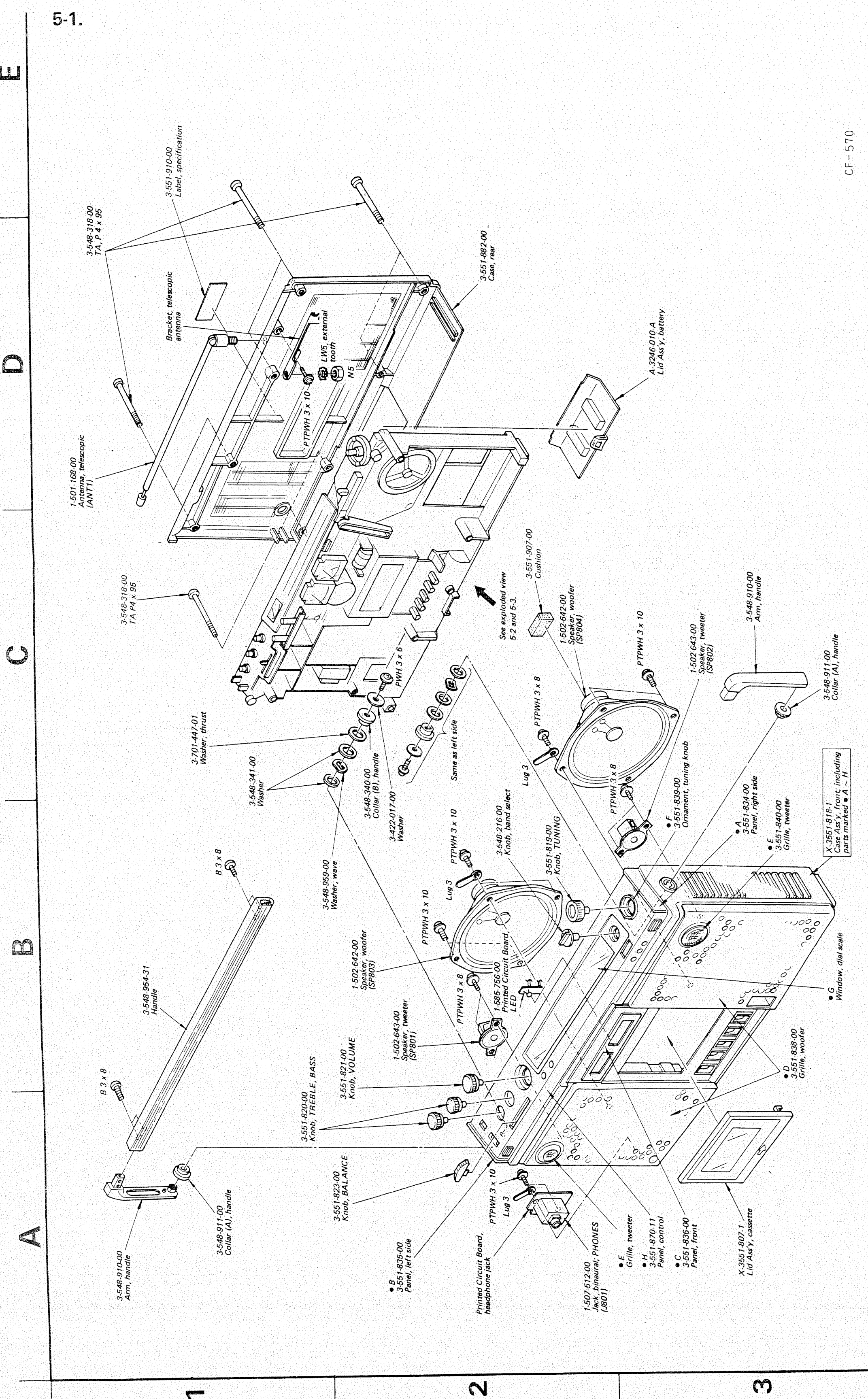

1
2
3
4
5
6
7
8
9
10
B+

IC1 LA3301


1
2
3
4
5
6
7
8
9
10
11
12
13
14
DOUBLER
SWITCHING
AMP

SECTION 5
EXPLODED VIEWS

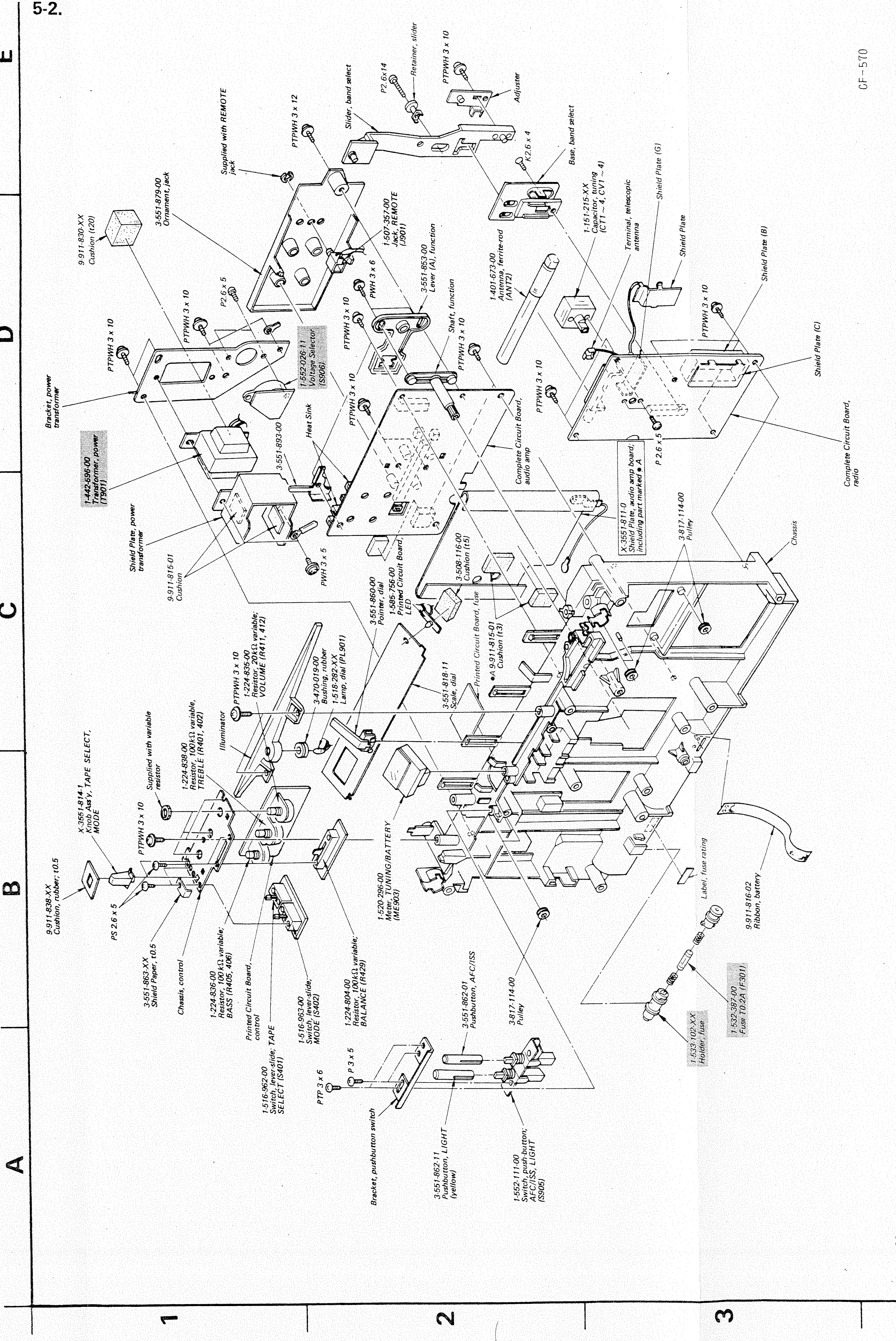
5-1.


3-548-316-00 TA, P4 x 95
3-551-910-00 Label, specification
1-501-168-00 Antenna, telescopic (ANT1)
Bracket, telescopic antenna
PTPWH 3 x 10
LW6, external tooth
N5
3-551-882-00 Case, rear
A-3246-010-A Lid Ass'y, battery
3-548-316-00 TA, P4 x 95
See exploded view 5-2 and 5-3.
3-551-907-00 Cushion
1-502-642-00 Speaker, woofer (SP804)
1-502-643-00 Speaker, tweeter (SP802)
3-548-910-00 Arm, handle
3-548-911-00 Collar (A), handle
X-3551-818-1 Case Ass'y, front; including parts marked ● A – H
3-701-447-01 Washer, thrust
3-548-341-00 Washer
3-548-340-00 Collar (B), handle
3-422-017-00 Washer
Same as left side
PWH 3 x 6
PTPWH 3 x 8
Lug 3
3-551-839-00 Ornament, tuning knob
3-548-216-00 Knob, band select
3-551-819-00 Knob, TUNING
● A 3-551-834-00 Panel, right side
● E 3-551-840-00 Grille, tweeter
● G Window, dial scale
● D 3-551-838-00 Grille, woofer
B 3 x 8
3-548-954-31 Handle
3-548-959-00 Washer, wave
1-502-642-00 Speaker, woofer (SP803)
1-585-256-00 Printed Circuit Board, LED
1-502-643-00 Speaker, tweeter (SP801)
3-551-821-00 Knob, VOLUME
3-551-820-00 Knob, TREBLE, BASS
3-551-823-00 Knob, BALANCE
3-548-910-00 Arm, handle
3-548-911-00 Collar (A), handle
● B 3-551-835-00 Panel, left side
Printed Circuit Board, headphone jack
1-507-512-00 Jack, binaural; PHONES (J801)
● F Grille, tweeter
● H 3-551-870-11 Panel, control
● C 3-551-836-00 Panel, front
X-3551-807-1 Lid Ass'y, cassette
A
B
C
D
E
1
2
3

CF-570

Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head

5-2.

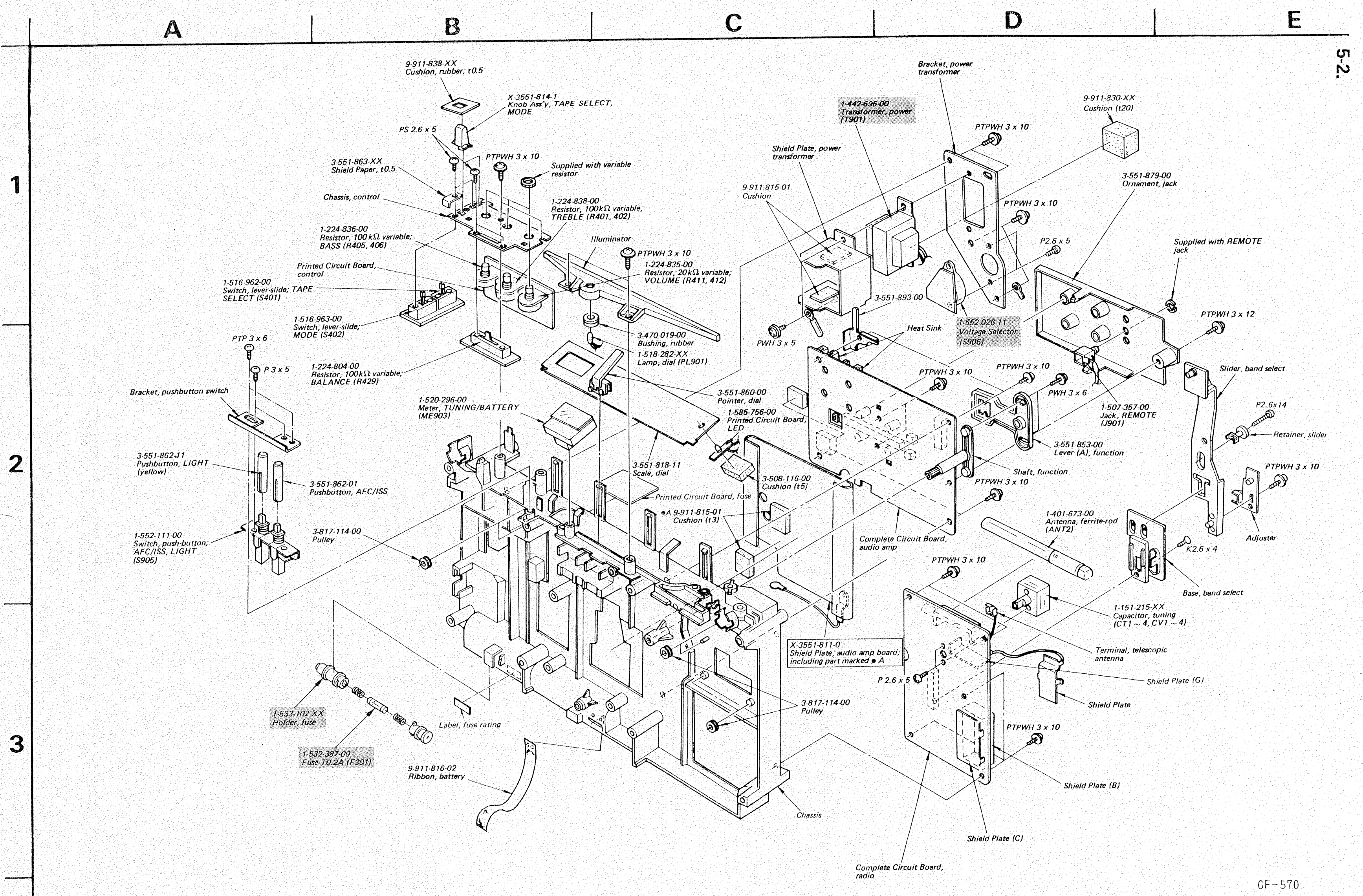

9-911-838-XX Cushion, rubber; t0.5
X-3551-814-1 Knob Ass'y, TAPE SELECT, MODE
PS 2.6 x 5
3-551-863-XX Shield Paper, t0.5
Chassis, control
1-224-836-00 Resistor, 100kΩ variable; BASS (R405, 406)
Printed Circuit Board, control
1-516-962-00 Switch, lever slide; TAPE SELECT (S401)
1-516-963-00 Switch, lever slide; MODE (S402)
1-224-834-00 Resistor, 100kΩ variable; BALANCE (R429)
1-520-295-00 Meter, TUNING/BATTERY (ME901)
Supplied with variable resistor
1-224-838-00 Resistor, 100kΩ variable; TREBLE (R401, 402)
Illuminator
PTPWH 3 x 10
1-224-835-00 Resistor, 20kΩ variable; VOLUME (R411, 412)
3-470-019-00 Bushing, rubber
1-518-282-XX Lamp, dial (PL901)
3-551-818-11 Scale, dial
Printed Circuit Board, fuse
● A 9-911-815-01 Cushion (t3)
3-551-860-00 Pointer, dial
1-585-256-00 Printed Circuit Board, LED
3-508-116-00 Cushion (t5)
9-911-815-01 Cushion
Shield Plate, power transformer
1-442-696-00 Transformer, power (T901)
Bracket, power transformer
PWH 3 x 5
3-551-893-00
Heat Sink
1-552-226-11 Voltage Selector (S904)
9-911-830-XX Cushion (t20)
3-551-879-00 Ornament, jack
P2.6 x 5
Supplied with REMOTE jack
PTPWH 3 x 12
1-507-357-00 Jack, REMOTE (J901)
PWH 3 x 6
3-551-853-00 Lever (A), function
Shaft, function
Complete Circuit Board, audio amp
X-3551-811-0 Shield Plate, audio amp board, including part marked ● A
3-817-114-00 Pulley
Chassis
Slider, band select
P2.6 x 14
Retainer, slider
Adjuster
Base, band select
K2.6 x 4
1-151-215-XX Capacitor, tuning (CT1 – 4, CV1 – 4)
1-401-673-00 Antenna, ferrite-rod (ANT2)
Terminal, telescopic antenna
Shield Plate (G)
Shield Plate
Shield Plate (B)
Shield Plate (C)
P 2.6 x 6
Complete Circuit Board, radio
Label, fuse rating
9-911-816-02 Ribbon, battery
1-532-387-00 Fuse T0.2A (F301)
1-533-103-XX Holder, fuse
3-551-862-01 Pushbutton, AFC/ISS
P 3 x 5
PTP 3 x 6
Bracket, pushbutton switch
3-551-862-11 Pushbutton, LIGHT (yellow)
1-552-111-00 Switch, push button; AFC/ISS, LIGHT (S905)
A
B
C
D
E
1
2
3

CF-570

Note: The components identified by shading are critical for safety. Replace only with part number specified.

Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head

5-2.

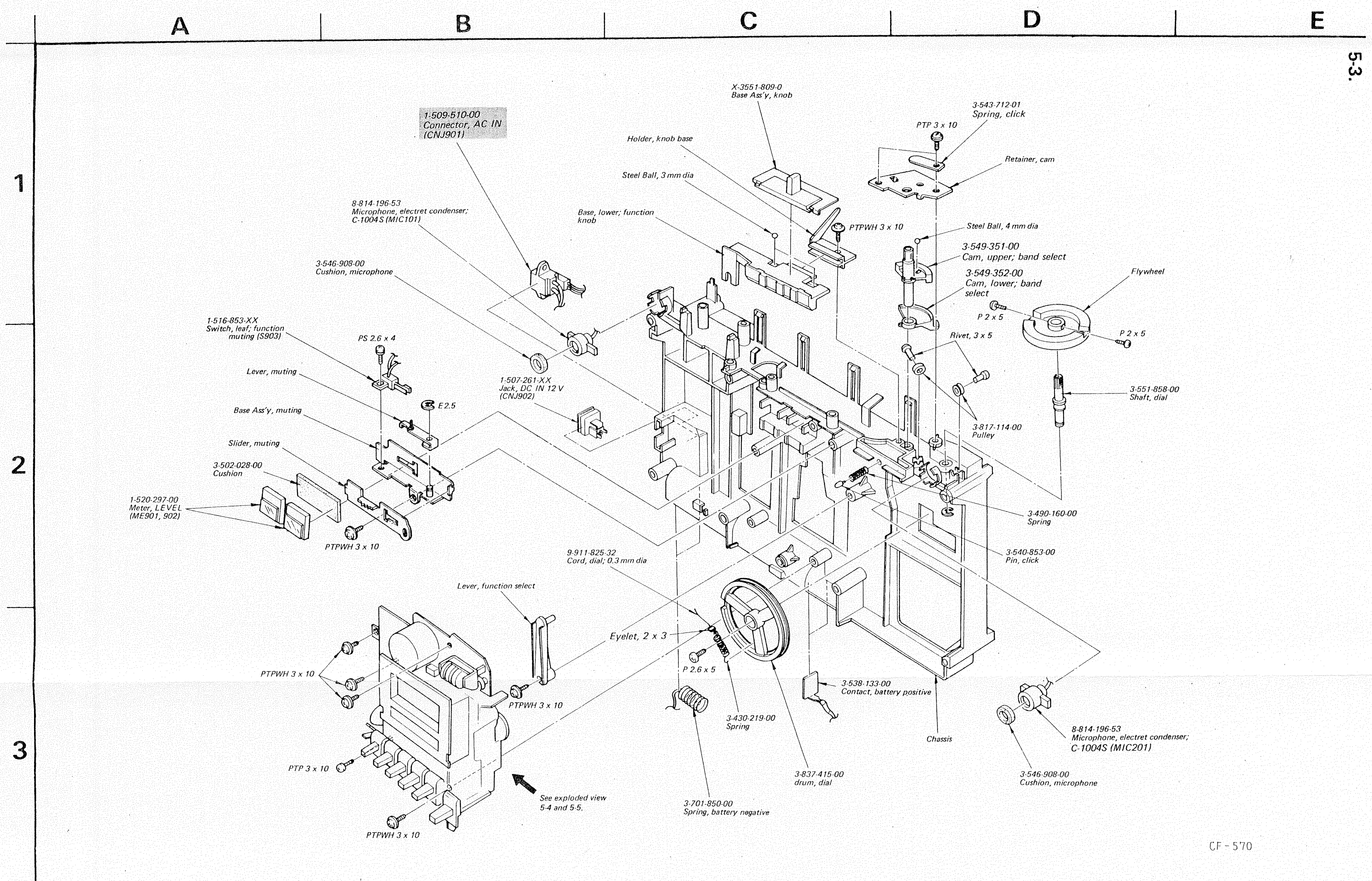

A
B
C
D
E
1
2
3
9-911-838-XX
Cushion, rubber; t0.5
X-3551-814-1
Knob Ass'y, TAPE SELECT, MODE
PS 2.6 x 5
3-551-863-XX
Shield Paper, t0.5
PTPWH 3 x 10
Supplied with variable resistor
Chassis, control
1-224-838-00
Resistor, 100kΩ variable, TREBLE (R401, 402)
1-224-836-00
Resistor, 100 kΩ variable; BASS (R405, 406)
Illuminator
PTPWH 3 x 10
1-224-835-00
Resistor, 20kΩ variable; VOLUME (R411, 412)
Printed Circuit Board, control
1-516-962-00
Switch, lever-slide; TAPE SELECT (S401)
1-516-963-00
Switch, lever-slide; MODE (S402)
3-470-019-00
Bushing, rubber
1-518-282-XX
Lamp, dial (PL901)
PTP 3 x 6
P 3 x 5
1-224-804-00
Resistor, 100kΩ variable; BALANCE (R429)
Bracket, pushbutton switch
3-551-860-00
Pointer, dial
1-520-296-00
Meter, TUNING/BATTERY (ME903)
1-585-756-00
Printed Circuit Board, LED
3-551-862-11
Pushbutton, LIGHT (yellow)
3-551-862-01
Pushbutton, AFC/ISS
3-551-818-11
Scale, dial
3-508-116-00
Cushion (t5)
Printed Circuit Board, fuse
●A 9-911-815-01
Cushion (t3)
1-552-111-00
Switch, push-button; AFC/ISS, LIGHT (S905)
3-817-114-00
Pulley
X-3551-811-0
Shield Plate, audio amp board; including part marked ● A
3-817-114-00
Pulley
1-533-102-XX
Holder, fuse
1-532-387-00
Fuse T0.2A (F301)
Label, fuse rating
9-911-816-02
Ribbon, battery
Chassis
Bracket, power transformer
1-442-696-00
Transformer, power (T901)
9-911-830-XX
Cushion (t20)
PTPWH 3 x 10
Shield Plate, power transformer
9-911-815-01
Cushion
3-551-879-00
Ornament, jack
PTPWH 3 x 10
P2.6 x 5
Supplied with REMOTE jack
3-551-893-00
PWH 3 x 5
Heat Sink
1-552-026-11
Voltage Selector (S906)
PTPWH 3 x 12
PTPWH 3 x 10
PTPWH 3 x 10
PWH 3 x 6
Slider, band select
1-507-357-00
Jack, REMOTE (J901)
P2.6x14
Retainer, slider
3-551-853-00
Lever (A), function
Shaft, function
PTPWH 3 x 10
PTPWH 3 x 10
1-401-673-00
Antenna, ferrite-rod (ANT2)
Adjuster
Complete Circuit Board, audio amp
K2.6 x 4
PTPWH 3 x 10
Base, band select
1-151-215-XX
Capacitor, tuning (CT1 ~ 4, CV1 ~ 4)
Terminal, telescopic antenna
P 2.6 x 5
Shield Plate (G)
Shield Plate
PTPWH 3 x 10
Shield Plate (B)
Shield Plate (C)
Complete Circuit Board, radio

CF-570

Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted. (–) = slotted head

Note: The components identified by shading are critical for safety. Replace only with part number specified.

5-3.

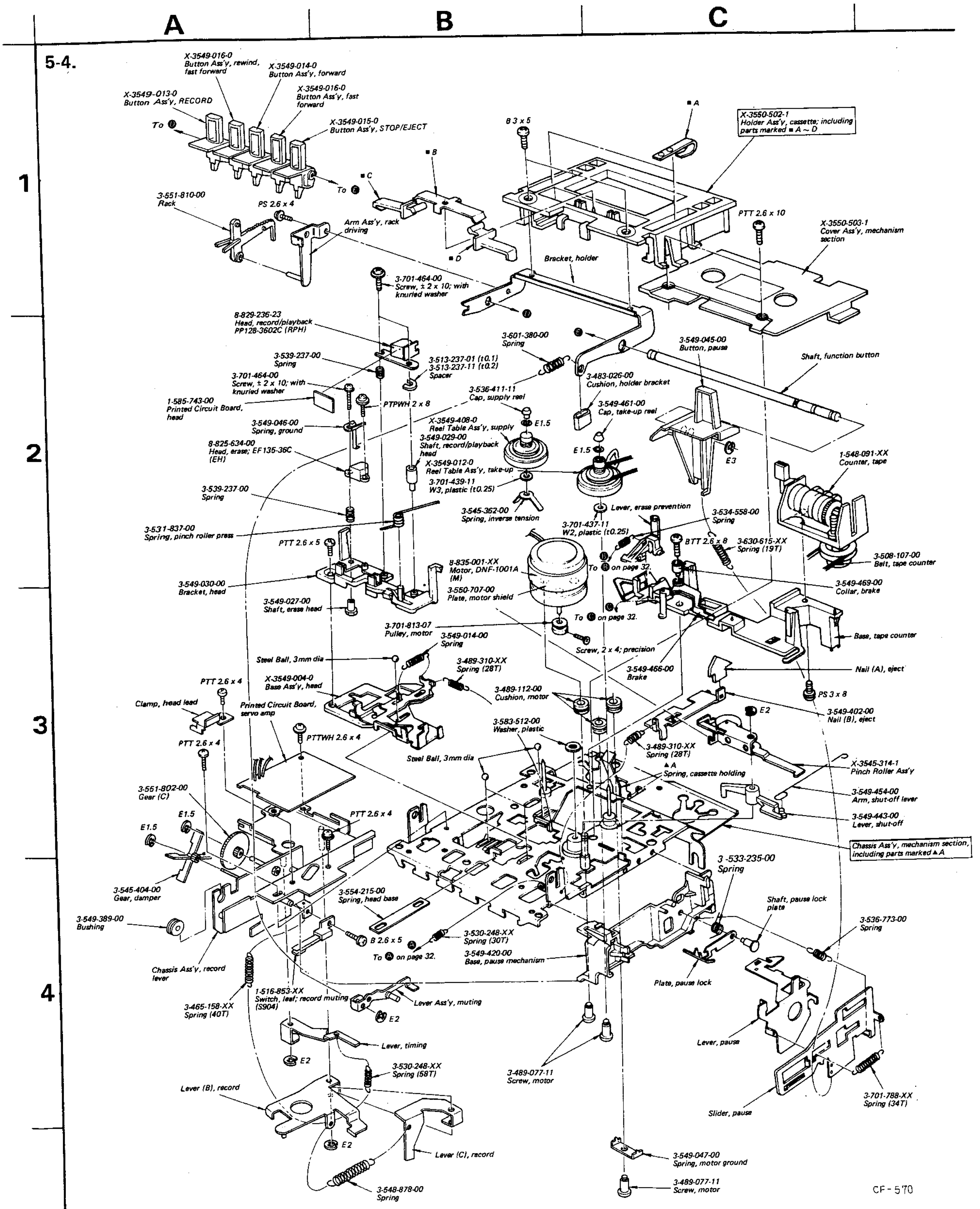

A
B
C
D
E
1
2
3
X-3551-809-0
Base Ass'y, knob
3-543-712-01
Spring, click
PTP 3 x 10
Retainer, cam
1-509-510-00
Connector, AC IN (CNJ901)
Holder, knob base
Steel Ball, 3 mm dia
PTPWH 3 x 10
Steel Ball, 4 mm dia
3-549-351-00
Cam, upper; band select
8-814-196-53
Microphone, electret condenser; C-1004S (MIC101)
Base, lower; function knob
3-549-352-00
Cam, lower; band select
Flywheel
3-546-908-00
Cushion, microphone
P 2 x 5
Rivet, 3 x 5
P 2 x 5
1-516-853-XX
Switch, leaf; function muting (S903)
PS 2.6 x 4
Lever, muting
1-507-261-XX
Jack, DC IN 12 V (CNJ902)
E2.5
3-551-858-00
Shaft, dial
Base Ass'y, muting
3-817-114-00
Pulley
Slider, muting
3-502-028-00
Cushion
1-520-297-00
Meter, LEVEL (ME901, 902)
3-490-160-00
Spring
PTPWH 3 x 10
3-540-853-00
Pin, click
9-911-825-32
Cord, dial; 0.3 mm dia
Lever, function select
Eyelet, 2 x 3
PTPWH 3 x 10
P 2.6 x 5
3-538-133-00
Contact, battery positive
PTPWH 3 x 10
3-430-219-00
Spring
Chassis
8-814-196-53
Microphone, electret condenser; C-1004S (MIC201)
PTP 3 x 10
3-837-415-00
drum, dial
3-546-908-00
Cushion, microphone
See exploded view 5-4 and 5-5.
3-701-850-00
Spring, battery negative
PTPWH 3 x 10

CF-570

Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwie noted (–) = slotted head

Note: The components identified by shading are critical for safety. Replace only with part number specified.

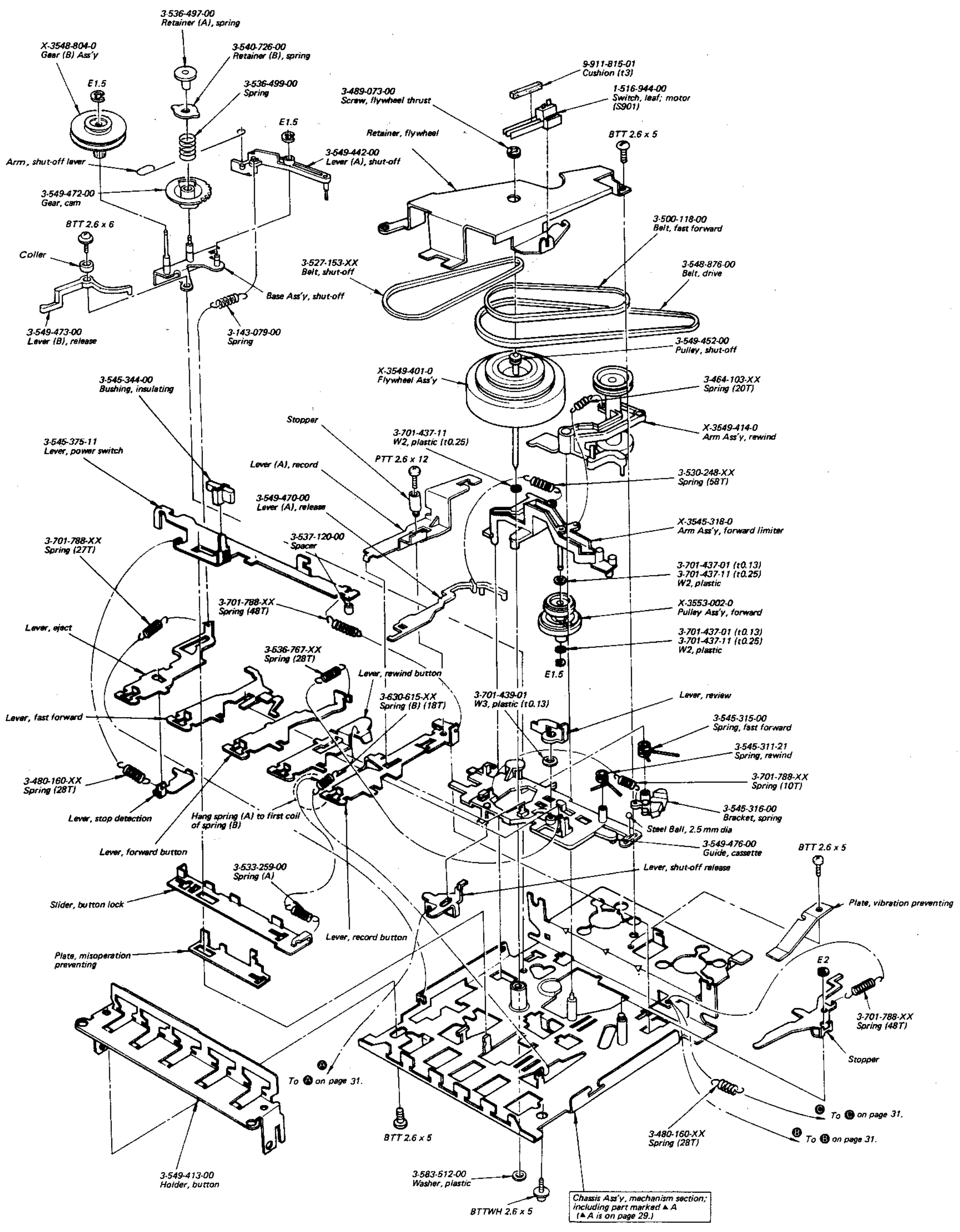
5-4.


A
B
C
1
2
3
4
X-3549-016-0
Button Ass'y, rewind, fast forward
X-3549-014-0
Button Ass'y, forward
X-3549-013-0
Button Ass'y, RECORD
X-3549-016-0
Button Ass'y, fast forward
X-3549-015-0
Button Ass'y, STOP/EJECT
To Ⓓ
To Ⓔ
■C
■B
■D
■A
B 3 x 5
X-3550-502-1
Holder Ass'y, cassette; including parts marked ■ A ~ D
3-551-810-00
Rack
PS 2.6 x 4
Arm Ass'y, rack driving
PTT 2.6 x 10
X-3550-503-1
Cover Ass'y, mechanism section
Bracket, holder
3-701-464-00
Screw, ± 2 x 10; with knurled washer
Ⓓ
Ⓔ
8-829-236-23
Head, record/playback PP128-3602C (RPH)
3-601-380-00
Spring
3-549-045-00
Button, pause
Shaft, function button
3-539-237-00
Spring
3-513-237-01 (t0.1)
3-513-237-11 (t0.2)
Spacer
3-483-026-00
Cushion, holder bracket
3-701-464-00
Screw, ± 2 x 10; with knurled washer
1-585-743-00
Printed Circuit Board, head
PTPWH 2 x 8
3-536-411-11
Cap, supply reel
3-549-461-00
Cap, take-up reel
3-549-046-00
Spring, ground
X-3549-408-0
Reel Table Ass'y, supply
E1.5
3-549-029-00
Shaft, record/playback head
E 1.5
E3
8-825-634-00
Head, erase; EF135-36C (EH)
X-3549-012-0
Reel Table Ass'y, take-up
1-548-091-XX
Counter, tape
3-701-439-11
W3, plastic (t0.25)
3-539-237-00
Spring
3-545-362-00
Spring, inverse tension
Lever, erase prevention
3-701-437-11
W2, plastic (t0.25)
3-534-558-00
Spring
3-531-837-00
Spring, pinch roller press
PTT 2.6 x 5
BTT 2.6 x 8
3-630-615-XX
Spring (19T)
Ⓑ
To Ⓑ on page 32.
3-508-107-00
Belt, tape counter
8-835-001-XX
Motor, DNF-1001A (M)
3-549-469-00
Collar, brake
3-549-030-00
Bracket, head
3-550-707-00
Plate, motor shield
3-549-027-00
Shaft, erase head
Ⓒ
To Ⓒ on page 32.
3-701-813-07
Pulley, motor
3-549-014-00
Spring
Base, tape counter
Screw, 2 x 4; precision
Steel Ball, 3mm dia
3-489-310-XX
Spring (28T)
3-549-466-00
Brake
Nail (A), eject
PTT 2.6 x 4
X-3549-004-0
Base Ass'y, head
3-489-112-00
Cushion, motor
PS 3 x 8
Clamp, head lead
Printed Circuit Board, servo amp
E2
3-549-402-00
Nail (B), eject
PTTWH 2.6 x 4
3-583-512-00
Washer, plastic
PTT 2.6 x 4
Steel Ball, 3mm dia
3-489-310-XX
Spring (28T)
▲A
Spring, cassette holding
X-3545-314-1
Pinch Roller Ass'y
3-551-802-00
Gear (C)
3-549-454-00
Arm, shut-off lever
E1.5
PTT 2.6 x 4
E1.5
3-549-443-00
Lever, shut-off
Chassis Ass'y, mechanism section, including parts marked ▲A
3 -533-235-00
Spring
3-545-404-00
Gear, damper
3-554-215-00
Spring, head base
Shaft, pause lock plate
3-536-773-00
Spring
3-549-389-00
Bushing
B 2.6 x 5
Ⓐ
3-530-248-XX
Spring (30T)
To Ⓐ on page 32.
3-549-420-00
Base, pause mechanism
Chassis Ass'y, record lever
Plate, pause lock
1-516-853-XX
Switch, leaf; record muting (S904)
Lever Ass'y, muting
3-465-158-XX
Spring (40T)
E2
Lever, timing
Lever, pause
E2
3-530-248-XX
Spring (58T)
3-489-077-11
Screw, motor
Lever (B), record
3-701-788-XX
Spring (34T)
Slider, pause
E2
Lever (C), record
3-549-047-00
Spring, motor ground
3-548-878-00
Spring
3-489-077-11
Screw, motor
CF-570

5

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (−) = slotted head
- (□□T) shows the number of coils in spring.

5-5.


A
B
C
1
2
3
4
5
3-536-497-00
Retainer (A), spring
X-3548-804-0
Gear (B) Ass'y
3-540-726-00
Retainer (B), spring
E1.5
3-536-499-00
Spring
E1.5
3-549-442-00
Lever (A), shut-off
Arm, shut-off lever
3-549-472-00
Gear, cam
BTT 2.6 x 6
Coller
Base Ass'y, shut-off
3-549-473-00
Lever (B), release
3-143-079-00
Spring
3-489-073-00
Screw, flywheel thrust
9-911-815-01
Cushion (t3)
1-516-944-00
Switch, leaf; motor
(S901)
BTT 2.6 x 5
Retainer, flywheel
3-500-118-00
Belt, fast forward
3-527-153-XX
Belt, shut-off
3-548-876-00
Belt, drive
3-549-452-00
Pulley, shut-off
X-3549-401-0
Flywheel Ass'y
3-464-103-XX
Spring (20T)
X-3549-414-0
Arm Ass'y, rewind
3-545-344-00
Bushing, insulating
Stopper
3-701-437-11
W2, plastic (t0.25)
PTT 2.6 x 12
3-545-375-11
Lever, power switch
Lever (A), record
3-530-248-XX
Spring (58T)
3-549-470-00
Lever (A), release
X-3545-318-0
Arm Ass'y, forward limiter
3-537-120-00
Spacer
3-701-788-XX
Spring (27T)
3-701-437-01 (t0.13)
3-701-437-11 (t0.25)
W2, plastic
3-701-788-XX
Spring (48T)
X-3553-002-0
Pulley Ass'y, forward
Lever, eject
3-701-437-01 (t0.13)
3-701-437-11 (t0.25)
W2, plastic
3-536-767-XX
Spring (28T)
Lever, rewind button
E1.5
3-630-615-XX
Spring (B) (18T)
3-701-439-01
W3, plastic (t0.13)
Lever, review
Lever, fast forward
3-545-315-00
Spring, fast forward
3-545-311-21
Spring, rewind
3-701-788-XX
Spring (10T)
3-480-160-XX
Spring (28T)
3-545-316-00
Bracket, spring
Lever, stop detection
Hang spring (A) to first coil
of spring (B)
Steel Ball, 2.5 mm dia
3-549-476-00
Guide, cassette
Lever, forward button
BTT 2.6 x 5
3-533-259-00
Spring (A)
Lever, shut-off release
Slider, button lock
Plate, vibration preventing
Lever, record button
Plate, misoperation
preventing
E2
3-701-788-XX
Spring (48T)
Stopper
Ⓐ
To Ⓐ on page 31.
Ⓒ To Ⓒ on page 31.
BTT 2.6 x 5
3-480-160-XX
Spring (28T)
Ⓑ To Ⓑ on page 31.
3-549-413-00
Holder, button
3-583-512-00
Washer, plastic
BTTWH 2.6 x 5
Chassis Ass'y, mechanism section;
including part marked ▲ A
(▲ A is on page 29.)

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- (□□T) shows the number of coils in spring.

SECTION 6
ELECTRICAL PARTS LIST

Ref. No.	*Part No.*	*Description*
		PRINTED CIRCUIT BOARDS
	1-585-741-00	Audio Amp
	1-585-743-00	Head
	1-585-756-00	LED
		SEMICONDUCTORS
		Transistors
Q1		2SC930
Q2,3		2SC1129
Q4–7		2SC710
Q8		2SC930
Q9		2SC710
⇒Q101,201		2SC632A
⇒Q102,202		2SC1364
⇒Q103,203		2SC634A
⇒Q104,204		2SC632A
⇒Q105,205 ⇒Q106,206		2SC634A
⇒Q301		2SC634A
Q302		2SC1173
⇒Q303		2SC634A
Q601		2SC1761
⇒Q602		2SB324
⇒Q603		2SC634A
		Diodes
D1		2SC634A
D2,3		1T261
D4,5		1T22A
⇒D101,201		1S1555
⇒D102,202 ⇒D103,203		1T22A
D301,302		10E2
⇒D303		EQB01-08
⇒D304		1T22A
⇒D601		10E2
⇒D602		1S1555
D901,902		SLP24B
		ICs
IC1		LA3301
IC101,201		HA1306W
		COILS
L1	1-425-632-00	FM RF
L2	1-459-157-00	FM Osc
L3	1-407-175-XX	330μH, microinductor
L4	1-407-178-XX	1μH, microinductor
L101,201	1-407-879-00	33 mH, microinductor
L601,602	1-407-484-00	3.3μH, microinductor
		TRANSFORMERS
T1	1-403-872-00	FM IFT
T2	1-403-952-00	FM Discriminator, primary
T3	1-403-953-00	FM Discriminator, secondary
T4	1-404-041-00	AM IFT, detect stage
T5	1-401-538-00	SW2 ANT
T6	1-401-584-00	SW1 ANT
T7	1-405-740-00	SW2 Osc
T8	1-405-739-00	SW1 Osc
T9	1-405-520-00	MW Osc
T10,11	1-425-956-00	MPX
T12	1-403-144-00	AM IFT
T101,201	1-427-420-00	Output
T901	1-442-917-00	Power
CF1,2	1-527-184-XX	Filter, ceramic; 10.7 MHz

⇒ : Due to replacement parts, the values are different on the diagrams.

Note: The components identified by shading are critical for safety. Replace only with part number specified.

CAPACITORS

All capacitors are in μF and ceramic unless otherwise noted.
50WV or less are not indicated except for electrolytics. pF = μμF, elect = electrolytic

Ref. No.	*Part No.*	*Description*		
C1,2	1-101-923-11	0.01		
C3	1-102-959-11	22p		
C4–6	1-101-923-11	0.01		
C7	1-102-513-11	18p		
C8	1-102-504-11	4p		
C9	1-102-865-11	8p		
C10	1-102-964-11	36p		
C11	1-102-503-11	3p		
C12	1-127-019-11	0.1	16V	solid aluminum
C13	1-102-935-11	2p		
C14–17	1-101-923-11	0.01		
C18	1-121-479-11	22	16V	elect
C19	1-101-924-11	0.022		
C20	1-101-923-11	0.01		
C21	1-101-924-11	0.022		
C22	1-102-973-11	100p		
C23	1-121-651-11	10	16V	elect
C24,25	1-102-978-11	220p		
C26	1-102-935-11	2p		
C27	1-102-945-11	8p		
C28	1-102-953-11	18p		
C29	1-102-951-11	15p		
C30	1-102-945-11	8p		
C31	1-102-944-11	7p		
C32	1-103-738-11	0.0036	50V	polystyrol
C33	1-103-730-11	1600p	50V	polystyrol
C34	1-102-944-11	7p		
C35	1-107-231-11	360p		silvered mica
C36,37	1-101-924-11	0.022		
C38	1-101-923-11	0.01		
C39	1-101-924-11	0.022		
C40	1-161-013-11	0.01		(boundary layer)
C41,42	1-101-923-11	0.01		
C43	1-121-409-11	47	16V	elect
C44	1-121-971-11	100	16V	elect
C45	1-161-013-11	0.01		(boundary layer)
C46	1-101-924-11	0.022		
C47	1-161-013-11	0.01		(boundary layer)
C48	1-121-352-11	47	10V	elect
C49	1-103-749-11	0.01		polystyrol
C50	1-161-003-11	0.0015		
C51	1-121-391-11	1	50V	elect
C52	1-121-651-11	10	16V	elect
C53,54	1-121-395-11	4.7	25V	elect
C55	1-103-734-11	0.0024	50V	polystyrol
C56,57	1-161-005-11	0.0022		(boundary layer)
C58,59	1-161-003-11	0.0015		
C60,61	1-161-005-11	0.0022		(boundary layer)
C62,63	1-161-008-11	0.0039		
C64	1-102-935-11	2p		
C101,201	1-127-019-11	0.1	16V	solid aluminum
C102,202	1-121-395-11	4.7	25V	elect
C103,203	1-107-073-11	33p		silvered mica
C104,204	1-101-918-11	0.001		
C106,206	1-121-391-11	1	50V	elect
C107,207	1-121-414-11	100	10V	elect
C108,208	1-121-726-11	0.47	50V	elect
C109,209	1-102-074-11	0.001		
C110,210	1-121-726-11	0.47	50V	elect
C111,211	1-121-651-11	10	16V	elect
C112,212	1-121-415-11	100	16V	elect
C113,213	1-101-918-11	0.001		
C114,214	1-121-651-11	10	16V	elect
C115,215	1-107-085-11	100p		silvered mica
C116,216	1-121-414-11	100	6.3V	elect
C117,217	1-121-651-11	10	16V	elect
C118,218	1-121-352-11	47	10V	elect
C119,219	1-161-001-11	0.001		(boundary layer)
C120,220	1-161-017-11	0.022		(boundary layer)
C121,221 C122,222	1-107-073-11	33p		silvered mica
C123,223	1-161-001-11	0.001		(boundary layer)
C124,224	1-161-002-11	0.0012		(boundary layer)
C126,226	1-107-083-11	82p		silvered mica
C127,227	1-107-069-11	22p		silvered mica
C128,228	1-107-075-11	39p		silvered mica

Ref. No.	Part No.	Description		
C129,229	1-102-074-11	0.001		
C130,230	1-121-391-11	1	50V	elect
C131,231	1-121-392-11	3.3	25V	elect
C132,232	1-121-651-11	10	16V	elect
C133,233	1-161-005-11	0.0022		(boundary layer)
C134,234	1-121-726-11	0.47	50V	elect
C135,235 C136,236	1-121-414-11	100	6.3V	elect
C137,237	1-102-110-11	220p		
C138,238	1-161-001-11	0.001		(boundary layer)
C139,239	1-121-409-11	47	16V	elect
C140,240	1-108-249-12	0.068		mylar
C141,241	1-108-254-12	0.022		mylar
C142,242	1-121-943-11	1000	10V	elect
C143,243	1-107-253-11	15+18+22+27p	500V	silvered mica
C144–146 C244–246	1-102-110-11	220p		
C301–303	1-101-918-11	0.001		
C304,305	1-123-070-11	2200	16V	elect
C306	1-121-415-11	100	16V	elect
C308	1-121-392-11	3.3	25V	elect
C309	1-121-940-11	470	16V	elect
C310	1-121-415-11	100	16V	elect
C311	1-123-072-11	220	10V	elect
C312	1-129-702-11	0.001	630V	polyethylene
C313	1-107-181-11	330p	500V	silvered mica
C314	1-107-188-11	620p	500V	silvered mica
C315	1-107-200-11	430p	500V	silvered mica
C316,317	1-121-479-11	22	16V	elect
C318	1-121-402-11	33	10V	elect
C319	1-121-391-11	1	50V	elect
C401,402	1-161-006-11	0.0027		(boundary layer)
C403,404	1-161-015-11	0.015		(boundary layer)
C405,406	1-161-018-11	0.027		(boundary layer)
C407,408	1-108-251-11	0.1		mylar
C415	1-101-181-11	0.01		
C601	1-121-414-11	100	6.3V	elect
C602	1-123-077-11	470	6.3V	elect

Ref. No.	Part No.	Description		
C603	1-121-409-11	47	16V	elect
C604	1-121-352-11	47	10V	elect
C801,802	1-119-426-11	3.3	50V	elect
CT1–3 CV1–4	1-151-239-00	Tuning		
CT4–8	1-141-171-XX	Trimer		

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted.
Check schematic diagram for values.

Ref. No.	Part No.	Description
R127,227	1-224-642-XX	1 k, adjustable
R138	1-224-643-XX	2.2 k, adjustable
R213	1-224-648-XX	100 k, adjustable
R302	1-213-084-11	100 1W fusible
R315	1-224-646-XX	22 k, adjustable
R401,402	1-224-838-00	100 k, variable; TREBLE
R405,406	1-224-836-00	100 k, variable; BASS
R411,412	1-224-835-00	20 k, variable; VOLUME
R429	1-224-804-00	100 k, variable; BALANCE
R608	1-224-642-XX	1 k, adjustable
RV1	1-224-642-XX	1 k, adjustable

SWITCHES

Ref. No.	Part No.	Description
S1	1-514-316-00	Slide, BAND SELECT
S101	1-552-113-00	Slide, record/playback
S102	1-552-112-00	Slide, FUNCTION
S401	1-516-962-00	Lever, slide; TAPE SELECT
S402	1-516-963-00	Lever, slide; MODE
S901	1-516-944-00	Leaf, motor
S903	1-516-853-XX	Leaf, function; muting
S904	1-516-853-XX	Leaf, function; record muting
S905	1-552-111-00	Pushbutton, AFC/ISS LIGHT
S906	1-552-026-00	Voltage Select

Note: The components identified by shading are critical for safety. Replace only with part number specified.

JACKS

Ref. No.	Part No.	Description
J101,201	1-507-450-00	MIC
J102,202 J103,203	1-507-451-00	LINE IN / LINE OUT
J801	1-507-512-00	PHONES
J901	1-507-357-00	REMOTE
CNJ901	1-509-510-00	Connector, 2-p AC INPUT
CNJ902	1-507-261-XX	DC IN 12V

MISCELLANEOUS

Ref. No.	Part No.	Description
ANT1	1-501-168-00	Telescopic antenna, FM, SW
ANT2	1-401-672-00	Ferrite rod antenna
CP1	1-231-286-00	Filter
CP301	1-464-025-00	Bias Osc Unit
EH	8-825-634-00	Head, erase; EF135-36C
F301	1-532-387-00	Fuse T0.2A
M	8-835-001-XX	Motor, DNF-1001A
ME901,902	1-520-297-00	Meter, level
ME903	1-520-296-00	Meter, tuning
MIC101,201	8-814-196-53	Microphone, electret condenser; C-1004S
PL901	1-518-282-XX	Lamp, pilot
RPH	8-829-236-23	Head, record / playback; PP128-3602C
SP801,802	1-502-643-00	Speaker, tweeter
SP803,804	1-502-642-00	Speaker, woofer
	1-533-102-XX	Holder, fuse

ACCESSORIES & PACKING MATERIALS

Part No.	Description
X-3551-821-1	Manual, instruction (E1 model)
X-3701-105-1	Tips Ass'y, cleaning
1-534-840-XX	Cord, power DK-38 (E1 model)
1-551-235-00	Cord, power; 2-p (E2 model)
3-551-880-00	Cushion (right)
3-551-881-00	Cushion (left)
3-551-892-00	Plate, stopper
3-551-895-00	Bag, protection
3-551-914-00	Carton (E1 model)
3-551-915-00	Carton (E2 model)
3-701-632-00	Bag, plastic
3-770-349-51	Manual Instruction (E2 model)
3-770-828-11	Card, caution; cassette
8-893-511-00	Tape, demonstration; CD-803

Note: The components identified by shading are critical for safety. Replace only with part number specified.

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